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There are four publications which attempt to throw light on the banking institutions working during this period. MacGregor writing in 1848 enumerates the banks of this period in his *Oriental Commerce*, Part XXIII, which forms a part of his wider work *Commercial Tariffs*. The next writer R. M. Martin furnishes us a list of banks in existence in India during the years 1803—1854.¹ There is a Parliamentary return of the year 1860 which gives us the following list of the banks doing business in India at that time.²

Bengal.	Madras.	Bombay.	Country Banks.
The Bank of Bengal.	The Bank of Madras.	The Bank of Bombay.	The Dacca Bank.
The Agra and United Service Bank.	Branch of the Agra and United Service Bank.	Branch of the Agra and United Service Bank.	The Delhi Bank.
The Chartered Bank of India, Australia and China.	The Government Savings Bank.	The Government Savings Bank.	The Simla Bank.
The Chartered Mercantile Bank of London, India and China.	Branch of the Chartered Mercantile Bank of London, India and China.	Branch of the Chartered Mercantile Bank of London, India and China.	The Uncovenanted Service Bank of Agra.
The Commercial Bank of India.		Branch of the Commercial Bank of India. ³	
The North-Western Bank.			
The Oriental Banking Corporation.	Branch of the Oriental Banking Corporation.	Branch of the Chartered Bank of India, Australia and China.	The Agra Savings Bank.
The Government Saving Bank.			

¹ See R. M. Martin's *Indian Empire*, Vol. I, p. 565.

² See the Collection of Parliamentary Papers, 1840—1870, in the Library of the University of Calcutta. Document C refers to the banks existing in India in 1860.

³ Compare this list with Martin's list.

To have an idea of banks conducting business in the earlier years, reference must be made to MacGregor. His publication already referred to enumerates the banks doing business in Calcutta, Bombay, Madras and Ceylon. It was natural on his part to make no reference to the country banks which undoubtedly existed at that time, as his work was solely concerned with commerce at the chief port centres. Coming to his list we find the following banks mentioned by him.

Calcutta.	Bombay.	Madras.	Ceylon.
The Bank of Bengal The Union Bank The Agra Bank. The Bank of Western India (Calcutta Branch).	Besides the banks of the town there are branches or agencies of other banks. He does not however specify the names of the banking institutions.	The Bank of Madras. The branches of other banks are not mentioned by him.	The Bank of Ceylon. The Oriental Bank.

Of the two banks in Ceylon, the Bank of Ceylon and the Oriental Bank, MacGregor gives interesting details which are not furnished either by Cooke or any other recent writer as regards their capital, nature of business and note-issue. The Bank of Ceylon was a bank of issue incorporated by royal charter in 1840 and confined its business solely to the island of Ceylon. But to facilitate its exchange business it had agencies in the Presidency-towns of India. Its circulation of notes amounted in 1840 to £127,487 according to MacGregor. The Oriental Bank had its head office in London and also a Board of Directors in Bombay. It had considerable operations in Calcutta, Madras, Canton, Hong-kong and Singapore. Its note-issue in 1846 was about £15,000. The total capital of both the banks as applied to Ceylon was very limited, being about £100,000 to £125,000. In addition to exchange business, *i.e.*, the sale of bills on England and the Presidency-towns of India, they received deposits and discounted local bills for merchants and traders. He says that "the latter mainly

comprise purchases made by the Chetties from importers chiefly of British produce and the acceptances of the Moormen retailers whose paper is for smaller amounts proportionate to their minor transactions." Speaking of the gradual growth of their banking business, he says that "the transactions of 1846 rose roughly to two millions, while in 1845 amounted to only one and half millions." MacGregor also testifies to the absence of speculation on the part of the merchants of Ceylon.⁴

R. M. Martin, who seems to be a more careful writer than MacGregor gives us the following table which shows at a glance the work of the banks of this period (1803—1854). As certain errors have to be corrected the full list has necessarily to be quoted.

⁴ See *Oriental Commerce*, pp. 710—712.

A comparison of this list with the Parliamentary one and the final list prepared by me would disclose certain discrepancies. Firstly the head office of the Commercial Bank is stated to be located at Bombay by Martin. The Parliamentary list which must be considered as a more authoritative source locates it at Calcutta. This bank was started in 1845 and not in 1854. The Oriental Bank is supposed to have been started in 1851 according to Martin's list. But it was first started in 1846 and it became the Oriental Banking Corporation in 1849 by virtue of its amalgamation with the Bank of Ceylon. This was done mainly in order to annex the note-issue privilege of the Bank of Ceylon. This mistake in the matter of date is not due to Martin but Dr. Ambedkar, who quotes the above list which contains however no dates, fills in the dates column and the discrepancy in dates must of course be attributed to Dr. Ambedkar.⁵

Cooke⁶ records the work of thirty-nine European banks which have been started in India or London, during this period mainly with the view of conducting banking business in India. But even this list is not an exhaustive one, for he fails to mention the names of some of the earlier European banks of the 18th century. It is evident that his information of the earlier European banks is very scrappy and is chiefly confined to few details of these operations as could be gleaned from the early records of the Bank of Bengal. It is evident that he has not consulted any of the periodicals and newspapers, or else he would not have omitted the work of the three Military Banks of Bengal, Bombay and Madras.

A recent writer⁷ who comments in an interesting and detailed manner on the methods of the early European banks in Calcutta bases his information on the selections of the Calcutta Gazette, and by a reference to the Government records of that time in the India Government Record Office and the Secretariat Office of the Government of Bengal he has succeeded in pointing out the

⁵ See Dr. B. R. Ambedkar's *Problem of the Rupee*, footnote of page 37.

⁶ See C. N. Cooke's *Rise and Progress of Banking in India*.

⁷ See Dr. H. Sinha's *Early European Banks*, Part I.

qualitative aspect of the work of the early European banks in Calcutta, *viz.*, the Bengal Bank, the Hindustan Bank, the General Bank of India, and the General Bank of Warren Hastings and the Bank of Calcutta which became rechristened as the Bank of Bengal as soon as it received its charter in 1809. His knowledge of the banks of this period is confined solely to banks of the city of Calcutta and he makes no reference either to the earlier banks which did business before the actual starting of the Bank of Hindostan. The contemporary Madras banks are not referred to. He does not even mention the name of the Carnatic Bank.

Dr. P. Banerjee in his valuable lectures on the State of Finance of the East India Company has given the public a glimpse into the nature of the work of the banks existing during these years (1770—1857). He succeeds in throwing more light on the General Bank of Warren Hastings which should not however be mistaken for the General Bank of India started in 1785. The attempt of Warren Hastings to organise the bank and thus perfect the means of easy and safe remittance from the moffusil into the metropolitan city, and the nature of the work of this short-lived institution are first outlined clearly in Price's History of Midnapore. Some more details are given by Dr. Banerjee.⁸

Before the work of these banks, which have not been mentioned by these previous writers including Cooke and Brunyate, can be taken up in detail, a reference to Cooke's list should be made.

Name of the Bank.	Year of its Starting.
1. The Bank of Bengal ...	... 1806—Chartered in 1809.
2. The Bank of Western India ...	... 1842
3. The Oriental Bank ...	... 1846
4. The Oriental Banking Corpora- tion ...	... 1851
5. The Bank of Madras ...	... 1843
6. The Government Bank of Madras	1805

⁸ See the Calcutta Review, Nov. 1927, pp. 133—141.

Name of the Bank.	Year of its Starting.
7. The Bank of Bombay ...	1840
8. The Union Bank ...	1829
9. The Bank of Hindostan ...	1770
10. The Commercial Bank ...	1819
11. The Calcutta Bank ...	1824
12. The Bank of Mirzapore ...	1835
13. The Agra and United Service Bank, Ltd. ...	1833
14. The North-Western Bank of India	1840
15. The Delhi Banking Corporation ...	1844
16. The Dacca Bank ...	1846
17. The Benares Bank ...	1844
18. The Simla Bank, Ltd. ...	1844
19. The London and Eastern Banking Corporation ...	1854
20. The Cawnpore Bank ...	1845
21. The Uncovenanted Service Bank, Ltd. ...	1846
22. The Agra Savings Fund ...	1842
23. The Commercial Bank of India ..	1845
24. The Government Savings Bank ..	1833
25. The Chartered Bank of Asia ...	1852
26. The Mercantile Bank of India, London & China ...	1853
27. The Chartered Mercantile Bank of India, London & China ..	1858
28. The Bank of Ceylon ...	1840
29. The Chartered Bank of India, Australia & China ...	1853
30. The Punjab Bank, Ltd. ..	1860
31. The Sindh, Punjab & Delhi Bank- ing Corporation, Ltd. ...	1860
32. The Central Bank of Western India	Nov., 1860

ORGANISED BANKING IN THE DAYS OF JOHN COMPANY 9

Name of the Bank.	Year of its Starting.
33. The Bank of Hindostan, China and Japan, Ltd. ...	... 1862
34. The Bank of Rohilkand ...	1862
35. The People's Bank of India, Ltd.	1860
36. The Comptoir d'escompte of Paris	1860
37. The Bengal Bank ...	... 1790
38. The Bank of India ...	... 1828
39. The Carnatic Bank ?

Besides the abovementioned banks which conducted business for some time, Mr. Cooke also mentions the unsuccessful attempts that were made during this period to start banks in London with the sole purpose of conducting banking business in India. He casually mentions the attempts of the London merchants to found the "East India Bank" in 1836.⁹ R. M. Martin strove his level best to secure a charter for his projected Bank of Asia in 1840.¹⁰ Similarly in 1852 the London Bank of Australia & India was projected, but owing to the opposition of the Colonial Office in London it failed to secure a charter.

Since Cooke wrote the memorable lines that "probably the first banking institution in India on European lines" was the Bank of Hindostan started in 1770, it has become the accepted article of faith among writers of Indian Economic History. This statement has to be accepted with much qualification. It must be understood that banks must have operated in India with either good or bad fortune even before that date. It is usual to consider the Government Bank of Lord William Bentinck as the only Government Bank conducted by the Government of Madras. As a matter of fact there were two such Government banks conducted by the Madras Government. No mention has been made by any other

⁹ For greater details see a pamphlet entitled *Reasons for the Establishment of a New Bank in India*, 1836, London; a copy of this exists in the Imperial Library, Calcutta.

¹⁰ See Parliamentary Paper entitled *Correspondence relating to the Projected Bank of Asia*. Document C of the *Parliamentary Papers*, 1840—1870.

writer of the attempts made in Bombay to conduct banking business by the Government bank started by the Government of Bombay. Even as regards some of the banks started in Bengal Cooke throws little light on their operations. For instance, the General Bank of Warren Hastings is not mentioned by him. His description of the work of the Government Savings Bank is not fairly lucid. No information can be obtained from Cooke's book as regards the first Government Bank of Madras and the Carnatic Bank. He does not even mention the names of the British Bank or the Asiatic Bank. Even in the case of the joint-stock banks of the North-West Provinces only very little light is thrown on their operations. Although he has given very interesting details of the Agra Savings Bank or Agra Savings Fund as he styles it, it is inexplicable why the three Military Banks did not attract his notice.

Most probably the credit of starting the first European-managed banking institution belongs to the "benighted" province of Madras. It was however a Government institution managed by its officers belonging to the Council.¹¹ It must have been started in 1683 as the following notification appearing in the Fort Saint George Gazette clearly proves this fact:

"By the Hon. East India Company's order we the Agent and Council of the Fort Saint George do hereby publicly declare unto all parties whatsoever that we will at any time take up and receive what sums of money so ever should be brought to us at six per cent per annum. Interest for six or twelve months' time or any longer term of years but no less than six months nor to exceed this time we shall agree for and we shall for the better security of such persons that shall so let out their money give our receipt for the same under the Honourable Company's seal."

A close scrutiny of the prior records of the Government discloses the information that it was in 1682 that the Hon'ble the East India Company recommended the Government of the Fort

¹¹ See Talbhoy Wheeler's *Madras in the Olden Times*, p. 71.

Saint George Gazette to obtain a loan by constituting itself a bank for the receipt of fixed deposits. Hence Governor Gyfford promptly resolved "to raise a bank of money to the value of one hundred thousand pounds at six per cent rate of interest."¹² Thus it becomes apparent that in order to augment the territorial revenues of Madras the plan of starting the Government Bank on the model of the London Goldsmiths' banks was mooted by the Hon'ble the East India Company. It is not clear whether it issued notes also but there is no doubt that it acted as a bank of deposit and discount.¹³

Chronologically viewed, the next attempt at founding an organised bank was made in Bombay. This time again it was the Government that pioneered the way. The following extract from the Bombay Government Diaries clearly proves that a bank existed in Bombay prior to the starting of the semi-Government or what is properly termed as the Presidency Bank of Bombay in 1840. From a perusal of the Consultations of 20th June, 1720, we find that a bank was to be organised, as this suggestion was approved by the Hon'ble the Court of Directors. Messrs. Brown and Phillips, members of the Bombay Council, were appointed to devise a scheme for the regular carrying on of the banking business. The increase of revenue was the object of the Council, and like the impecunious Government of Madras which did banking business in 1683 in order to augment its revenues one of the objects of the Bombay Government was to increase the revenues by undertaking banking business. The scheme was duly prepared by Messrs. Brown and Phillips and placed before the Council for approval on 25th July, 1720. The "black merchants" were also taken into confidence and the scheme was sanctioned at the same sittings of the Council. The managers of the bank were to receive one per

¹² See P.C., Vol. III, 21st June, 1683.

¹³ See Mrs. Penny's History of the Fort Saint George. Prof. Dodwell holds a contrary view and does not consider it as a bank, but only thinks that the word "bank" was used in the literal dictionary sense of the term and that its banking operations cannot be traced in full. See his Report on the Records of the Madras Government, p. 85,

cent of the profits for their trouble. The bank commenced its operations and until 1724 no remuneration was actually paid to the Assistant of the Bank, when it was resolved to award a gratuity of £50 per annum.

From a perusal of the Consultations of the Bombay Council for the year 1727-28, dated 1st March, 1727, we find that the bank was conducting business at that time in Bombay, for the two petitions read before the Council from the Mayor's Court clearly suggest that the "two thousand rupees the amount of fine now standing upon the books to be appropriated towards a new person be taken out of the Treasury and employed in the banks at interest or entrusted in the hands of the said Court for answering the most necessary occasions of the said Court."

The very great scarcity of specie in 1770 in the island of Bombay led the Government to discover some means by which the Currency situation would be eased to any appreciable extent. One Mr. Taylor, a member of the Council, proposed the issuing of bills from the bank on loans upon the present security. "It was resolved that this plan should be put into execution and that notes be immediately prepared to the amount of debt due from the Treasury to the bank, being with interest about Rs. 8,00,000. The notes to be from forty to one thousand rupees each, signed by the manager of the bank and sealed with the Hon'ble Company's seal."

This original plan was greatly improved by an officer of the Bank of England, Mr. Robert Blackford, and his final draft of the proposal was to make the bank a bank of deposit and issue. The bank was to be privileged to issue notes up to 8 lakhs of rupees only. The Treasury should in the beginning assist the bank with one-third of eight lakhs of rupees in specie and notes up to this amount should be retained by the Treasury to be returned when specie is repaid. Persons who borrow money from the bank should undertake to encourage the circulation of the notes which were to carry interest payable only after the expiry of ten days. The form of notes was to be exactly similar to the notes of the

Bank of England. So as to protect the gentlemen of the Council who are to manage the bank the form of the note was to be signed in the following manner:

“ For the Court of Directors of the United East India Company ” thus making the East India Company alone liable for the notes. The first notes of the bank were to be of the following denominations for each lakh of rupees:—

Rs.				Rs.	
10	of	1,000	each	...	10,000
24	of	500	„	...	12,000
24	of	300	„	...	7,200
100	of	200	„	...	20,000
200	of	100	„	...	20,000
400	of	50	„	...	20,000
540	of	20	„	...	10,800
					<hr/>
Total Rs.					... 1,00,000 ¹⁴
					<hr/>

It was understood that as time and experience alone would enable it to find out what denomination of notes were in great demand, the portion of the notes for which there were to be no demand was to be destroyed and replace to that amount by those which appear to be most in demand. Thus it clearly proves that no

¹⁴ This plan should be compared with the scheme of Warren Hastings to issue notes in Bengal in 1780 against the deposit of Sicca Rs. 30 lakhs lying in the Treasury in the New Fort William. He adopts the same form as this so as to exonerate the officials from all liabilities with reference to notes issued under their signature. This plan was not however carried out as the notes issued by an impecunious Government could hardly have circulated. The similarity between the two plans is striking and Warren Hastings' plan must have been borrowed from a perusal of the plans of the Bombay Government.

It has already been related that an officer of the Bank of England was requisitioned for improving the original plan of the bank determined by the Bombay Council. The first notes of the Bank of England were issued exactly in a similar

bank notes circulated prior to this date in Bombay, or else previous experience would have been drawn upon in the determination of the denominations of the notes. Another significant fact that has to be noted is the round figure for which the notes were to be issued. When compared with the first specimen notes of the Bank of England it would be noticed that they were for broken denomination including shillings and pence even. At any rate, the Bombay Bank's note was to be an improvement on this old form of the note of the Bank of England.

As only eight lakhs worth of notes were to be issued it was wisely resolved that no person was to be lent more than Rs. 8,000 at any one time and the bank should consider any second application for notes on its own merits. This shows that the Bombay Council seems to have dimly perceived the principles of sound banking, *viz.*, that all eggs were not to be placed in the same basket and that the bank should distribute its capital in the hands of all deserving applicants and that credit should be created without any bias—be it communal, religious or political.

It was also determined to attract current accounts and pay a deposit rate of interest, *viz.*, five per cent.

The bank must have conducted business for some years, for we find it recorded in July, 1778, that "the debt from the Treasury due to the bank amounted to a very large sum" and it was swelled to a large extent by the annual interest payable thereon. The Council felt great anxiety on this score and wrote to the Hon'ble the Court of Directors to give it specific instructions "whether to fix it at a certain sum or to write it off altogether and establish a new bank whenever the state of our finances will permit."

manner. A specimen of the 1699 Note of the Bank of England is appended to enable the reader to note the points of similarity in the matter of note-issuing.

27th April

J. V.

I promise to pay to Mr. Daniel Denny or Bearer on demand the sum of one hundred and fifty pounds eight shill. and eight d. for the Governor and Company of the Bank of England, John (Wase) London, the 24th day of January, 1699.

See R. D. Richards—Quarterly Journal of Economics, Vol. XLI, p. 399.

This bank might not also have issued large amount of notes, for latter-day¹⁵ writers have often mentioned that previous to the foundation of the Presidency Bank of Bombay in 1840 "paper money was almost unknown in mercantile transactions of Bombay" as at Calcutta and Madras.

Passing on to the territory of Madras we notice that Lord Macartney also strove to raise a bank of money, meaning thereby a "public treasure" in connection with the settlement of the Nawab's and the Tanjore debts. His plan was that the bank should keep one-third of its funds in specie and lend two-thirds on good bills or valuable pledges at six per cent. He opined however that this would convert Madras into "a shop of pitiful usury instead of a city of honourable commerce."¹⁶

The present knowledge of the writers on the Carnatic Bank—a banking institution of this period—is confined only to the single paragraph written by C. N. Cooke. He refers to the Carnatic Bank in the following language: "This is the name of a bank which was in existence at the Madras Presidency in 1791. At present we are without knowledge of the proprietary body and other particulars."¹⁷

All the latter writers including Symes Scutt repeat the same information and have nothing to add.¹⁸ Even in the book on the Early European Banks no mention is made of the Carnatic Bank which undoubtedly must be considered as one of the earliest of the European banks conducting business in this country. It is indeed

¹⁵ See J. MacGregor's Commercial Tariffs, Part XXIII, p. 661. See also the pamphlet—"The Late Government Bank of Bombay," 1868. This does not however mention any details as regards the note-issue of the Bank of Bombay (1840—1868). It is in reality a history of the Bank of Bombay from 1863 to 1868. Something more can be actually written from a thorough study of the evidence of the witnesses before the Sir C. Jackson Committee.

See also C. N. Cooke's Banking in India, p. 175.

See also Symes Scutt's History of the Bank of Bengal.

¹⁶ See the Military Consultations, 17th April, 1782, p. 1064. Quoted by H. Dodwell in the Records of Madras.

¹⁷ See C. N. Cooke's Banking in India, p. 392.

¹⁸ Symes Scutt's History of the Bank of Bengal.

a wonder why these writers did not refer to any published records on the Madras Presidency dealing with the history of the province in the last years of the eighteenth century. It is an unpardonable error to style a book as dealing with the early European banks while only the European banks in Calcutta are taken into account. A large number of banks doing business in other provinces are not even mentioned. There is no description of this bank's work in the Madras Presidency in the recently published work of Dr. Banerjee on Indian Finance in the Days of John Company.¹⁹

THE HISTORY OF THE CARNATIC BANK

A scrutiny of the State Records of 1788 has enabled the industrious writer Mr. H. D. Love to point out that this was the first joint-stock bank in Madras founded under the title of the Carnatic Bank during Sir Archibald Campbell's governorship.²⁰ The founders of the Carnatic Bank were Josias Du Pre Porcher of Fort Saint George and Thomas Redhead of Calcutta, John Balfour, John Chamier, Edward Raphael, Thomas Cockburn, Benjamin Torn and N. E. Kendersley who was a member of the Board of Trade also. The object was to receive money, issue bills and notes and discount bills and notes and other securities "after the manner of the most respectable bank in London." Its capital was 120,000 star pagodas divided into eight shares held by the above-mentioned founders. Power was taken to appoint a cashier, clerks, servants and to issue notes to the value of three times the capital and the bank began issuing its notes in 1788.²¹

On 22nd December, 1790, we find the Carnatic Bank issuing a notice in the Fort Saint George Gazette that no business will be

¹⁹ Dr. Banerjee says: "In the Madras Presidency an institution bearing the name of the Carnatic Bank existed in 1791 but very little is known about its activities." See his article on Banking in the Days of John Company, Nov. Calcutta Review, p. 137. Nothing further is stated in the bigger book of his, dealing with the finances of this country in the days of John Company.

²⁰ See P. Miss, Vol. II, 11th August, 1791, for greater details.

²¹ See P. C., Vol. CL, 11th August, 1788, for greater details which are not however of great importance.

transacted at the bank either on Xmas or New Year's Day. Mr. John Hunter, who subsequently became the Director of the British Bank, was the then Cashier who signed the notification. Evidently in the absence of a Negotiable Instruments Act fixing the number of bank holidays the banks had to issue general notifications indicating the bank holidays. A similar list of bank holidays at the Bank of Bengal was published by the latter institution in 1837. The list was the same as that allowed by the moffusil courts of the East India Company in the province of Bengal, or the Treasury and the Sudder Dewany Adawlut.²²

Messrs. Porcher and Redhead were the original proprietors of the scheme and were also the directors of the Bank of Hindostan doing business at Calcutta. They not only gradually²³ secured the

²² See the Asiatic Journal, July, 1838, p. 151, Jany., 1838, p. 7.

THE LIST OF HOLIDAYS

Christian.	Hindoo.	Mahomadan.
N. Year's Day.	Mucker Sankranti.	Shubrath.
Good Friday.	Sree Punchamy.	Eed.
Xmas.	Seeboo Ratree.	Buekred.
Sundays.	Dole Jatra.	Muharam.
	Baronee.	Akharee Chursunk.
	Sree Ram Navami.	Bawray Buffa.
	Churuk Pujah.	
	Dhuserah.	
	Seenain Jatrah.	
	Ruth Jatrah.	
	Ooltah Ruth Jatrah.	
	Ratee Poormean.	
	Jummo Ostami.	
	Ononto Brotto.	
	Mahalaya—1.	
	Durga Pujah—I.	
	Kalee Pujah—2.	
	Bharata Dotna—1.	
	Ross Jatrah.	
	Kartik Pujah.	
	Juggadhatri Pujah.	
	Deotan.	

The closing of The Bank of Bengal at 2 p.m. on Saturdays commenced from 1863—See Symes Scutt's History of the Bank of Bengal, p. 67.

²³ In 1791 Balfour and Raphael sold their shares to John D'Fries Junior and Porcher and Redhead respectively.

shares which the other proprietors wished to dispose of but Porcher was appointed as a permanent director, and two other directors were chosen to help him. Thus he can be considered as the first managing director of an Indian bank. This system still persists in this country in spite of its apparent defects.

It was at the suggestion of Mr. Porcher that the Carnatic Bank approached the Madras Government with the request to support it in its endeavour to give the rupee a more easy and extensive currency at the established rate of exchange. Its letter says that "hitherto we have been able to receive that coin at the bank but if the Government will be pleased to authorise the receipt of our notes at the Treasury to any limited extent they think proper, we will make arrangements for the receipt of rupees and issue notes accordingly. There cannot be any risk out of this step, *i.e.*, granting this indulgence to, say, one lakh fifty thousand pagodas, and the great object of fixing the currency of this rupee will be considerably forwarded by it, and a great convenience would naturally result both to the Government and individuals who find it difficult to receive or pay away a larger sum than one lakh of rupees in course of the morning and the shroffing, of which the expense is considerable, will be saved to individuals."²⁴

But the Madras Government refused to grant any concessions, and this must have been the result of the Court of Directors' order of 10th January, 1787, enjoining on the local authorities in India not to have any dealings with private banks, nor encourage them in any way.²⁵ The Court of Directors also held the opinion that

²⁴ This letter to the Government from which the above extract is taken was signed by the following directors of the Bank :—Jos Du Pre Porcher, Thomas Cockburn, John D'Fries Junior, Jos Du Pre Porcher for J. Chamier and Thomas Redhead, Esq. Porcher Redhead for J. Chamier and Thomas Redhead, Esq. Porcher Redhead & Co. for Messrs. Torn and Kindersley. For the copy of the original letter, see P. C., Vol. CLXX, 8th July, 1791.

²⁵ This order was not directly carried out by the Bengal Government which actually decided to loan five lakhs of Sicca rupees to the Bengal Bank and one and half lakhs of Sicca rupees to the Hindostan Bank in 1791 on the deposit of Company's Paper to the amount required (25 per cent in addition thereto in the case of the Bengal Bank was also insisted upon). The Bengal Bank could not take advantage of this liberal offer. The Hindostan Bank paid off the loan within the

the agency houses and the indigenous bankers were better fitted to meet the banking needs of the community than the European banks. In the then circumstances of the Indian society the utility of banking institutions was doubtful. Hence it forbade any connection whatsoever with the private bankers. As a result of such explicit instructions the Madras Government refused to employ the agency of the private bank in money negotiations and encourage it in its attempts to extend the popularity of the rupee, though reciprocal convenience could have resulted out of this step.

The Carnatic Bank however continued its business, and in 1798 it was appointed along with the British Bank to receive the deposit of lottery money. When it ceased to exist is difficult to ascertain, for the chroniclers of this period have failed to provide us with any authentic record. Evidently it might have failed immediately after 1808 when Lord William Bentinck's Government Bank started its business in right earnest. The actual rivalry of the three existing banks—the Carnatic Bank, the British Bank and the Asiatic Bank—led to the necessity of creating a trustworthy bank.

The British Bank mentioned in the above paragraph was a contemporary institution conducting business in Madras at about this time. No writer on banking has even mentioned the name of this bank. The directors of the British Bank were George Westcott and Thomas Lorimer, Robert Woolf, Francis Lantone and John Hunter. The last-named individual acted as the Cashier of the Carnatic Bank, and we find that it was in existence by 1795. In 1798 it was appointed along with the Carnatic Bank to receive

stipulated period of two months and soon regained its position in the money market. References to this bank can be met with in 1799 as well as 1807. The Bank of Hindostan acted as the Agent of the Calcutta Exchange Lottery and sold its tickets in 1799. (See Symes Scutt's *History of the Bank of Bengal*.) Again in 1807 we find the Government of Bengal making use of this bank for inviting tenders for constructing a mausoleum over the grave of Lord Cornwallis at Ghazipore.

The Bengal Government easily justified its help on the ground that if the banks were to fail, the value of Government Paper would be adversely affected, that Government contractors would fail and the faith of the holders of the Government Securities would be easily shaken and undesirable political complications might result out of this step.

the deposit of lottery money. Another mention of the British Bank can be traced in the Government records when the value of its building was estimated at about 7,500 star pagodas. There was also in existence another bank known as the Asiatic Bank conducting business in 1805. The keen rivalry which existed among the three banks made the general public dissatisfied with their business and Lord William Bentinck organised his plan of the Government Bank in those days when private credit failed to create the needed banking machinery.

Even of the work of the second Government Bank at Madras, started by Lord William Bentinck in 1805, very little is known. Cooke says that it conducted business on a very small scale and had a note circulation of a very limited amount. Brunyate considers "it more a treasury than a bank."²⁶ Not one of the recent writers gives us more information than these two writers.

The origin of the Government Bank was due to the recommendation of the Second Finance Committee appointed to consider the state of finances of the Presidency of Madras. The First Finance Committee was appointed in 1798 and sat till 1800. Different subjects like the management of the Lottery Fund and the establishment of the Government Bank to help the conditions of the junior members of the Company and the reorganisation of the Post Offices were some of its recommendations. The Bank of Issue could not be started, for nothing definite as regards Government control was stated therein.

One of the recommendations of the Second Finance Committee which submitted an ad-interim report in November, 1805,²⁷ was

²⁶ See J. B. Brunyate's *An Account of the Presidency Banks*, p. 29.

²⁷ The Second Finance Committee sat till 1808. It was of opinion that though Gold pagodas were in circulation, silver was the only suitable currency; and as there were numerous coins with fluctuating values which only tended to increase the shroff's profit in converting them into change, it was proposed to adopt the Bengal Rupee as the single standard of value. Up till 1815 this diversity of coin existed and an examination of the Government Treasuries revealed that there were roughly 72 varieties of gold coin, 60 varieties of silver and 25 varieties of copper. These were gradually called in. Single and double pagodas were issued together with rupees, half-rupees, quarter rupees and two-anna pieces. In 1818

to start a Bank of Issue on lines similar to those recommended by Henry St. George Tucker in his letter to Lord Wellesley written in 1801. The only difference was that the Government should not subscribe any share capital, nor were there to be any Government directors. There was no individual private capital to have recourse to and no individuals like shareholders interested in maintaining its credit.

The part played by Lord William Bentinck in the founding of this Bank is not mentioned by any other writer and is worth recording, as it shows the foresight of that distinguished nobleman who later on won laurels for his improvements in the civil administration of the Company's territory. He was a staunch believer in the superiority of Government credit to private credit, and he thought that in order to have extended Paper Currency the best means would be to start a Government Bank which would always have the accommodation of the Public Treasury.²⁸ As he could not secure support for his scheme in the Council, the bank was started in the second week of December, 1805²⁹, without even consulting the Supreme Government. He acted as the sole director of the bank and its notes were received at all the public Treasuries in lieu of cash.

This plan of the Madras Bank was forwarded to Henry St. George Tucker for favour of his esteemed opinion, and from his trenchant criticism the following points of the bank administration can be gathered. He rightly says that "it is deficient in two of the most essential requisites of a bank. It is neither calculated to obtain the confidence of the public, nor does it provide the means of aiding the operations of commerce. The Madras Bank will not in my opinion be distinguished from the public Treasury. It will be involved in all the money transactions of the Government. It will participate in its difficulties and its

it was decided to replace the star pagoda by the silver rupee as the coin of account. (See Public Consultations, 27th July, 1815, p. 1999, and 7th Jan., 1818, No. 17.)

²⁸ See Public Consultations, 29th Nov., 1805, p. 5709.

²⁹ See Public Consultations, 6th Dec., 1805, p. 5793.

credit will be least when it has most occasion for credit in time of public distress. Lord William Bentinck contemplates this and makes provision for suspending cash payment as done in England during 1797 and after." The original plan of the bank was to issue notes only and the idea of acting as a bank of deposit and discount at the same time did not enter into the mind of the founder. Mr. Tucker was shrewd enough to recognise the limited utility of a bank of issue and criticised this above conception on the following ground that "if the amount of specie which it was to keep in reserve was as much as the actual amount of notes in circulation, there would be no augmentation of the circulating medium." A minor point of criticism was "that it was not so framed as to secure the greatest economy in its management." "As the Governor chose to be the sole director, his other duties would be so exacting that there would be very little time to pay adequate attention to supervise the duties of the bank, and the real affairs would after all be managed by subordinate officers having no direct responsibility."

This lucid criticism must have had a certain amount of salutary effect in bringing about improvements in the Government Bank of Madras. It soon undertook deposit and discount business. Its notes were received in the public Treasury but they had scarcely any circulation in the province of Madras itself.

Occasional references to its officers can be traced in the Government records of the time. One Richard Yieldham, a free merchant who settled in Madras, acted as the Treasurer of the Government Bank.

The Government Bank was located under the Exchange in 1807. Important changes took place during the years 1807 to 1809 and no writer on banking has chronicled these significant facts. Mr. Petrie, who had to act as the Governor in place of Lord William Bentinck who was recalled as a result of the Sepoy Mutiny at Madras, refused to act as the Director of the bank and appointed four ex-officio Directors—the Chief Secretary, the Mint Master, the Accountant-General and the Sub-Treasurer. The Court of

Directors condemned the starting of this bank without their advice or consent being taken and directions were issued to follow the proposed regulations of the Bank of Calcutta. The Accountant-General had to undertake this task of reorganisation and all the notes issued hitherto were recalled by a proclamation dated 29th November, 1808. For a period of two years an attempt was made to reconstruct the bank, allowing the Government to subscribe one-fifth of the total five lakhs of pagodas of capital. The bank was to be placed on a limited liability basis. The notes were to be current only in the Madras Presidency. The Government was to nominate five out of nine directors. The bank was to discount bills and the maximum rate of discount was fixed at twelve per cent.³⁰

This well-directed scheme of reorganisation fell through and the bank was started as a Government Bank pure and simple, managed in all its aspects by the servants of the Government. The management rested in the hands of those ex-officio financial officers of the Government, and according to Brunyate "it was managed unsuccessfully by the Government officials during the early days of its career."³¹ Even the Presidency Bank of Madras started in 1843 had to suffer on account of incompetent management during the first two years of its existence. "Improper advances to speculative persons formed the chief mistake."

Another industrious writer Mr. Crawford says, "we have never seen stated in any public document the amount of the capital of the bank, and its profits instead of being carried half-yearly or yearly to account are permitted to accumulate for a series of years and thus carried to public credit."³² During 1826-27 the estimated profit was £620,226 but the real profit was

³⁰ See Public Consultations, 1809, 7th Nov., p. 6726; 23rd Nov., p. 6727.

³¹ Brunyate must have been referring to Maitland's mismanagement of the Madras Bank in 1829 as a result of which strict regulations were passed in the matter of making loans. See Secret Consultations, 5th Oct., 1830, Nos. 1 to 30.

³² See Mr. Crawford's evidence before the Select Committee of the H. of Commons, 1830.

£516,855 if the pagoda was to be valued at its real rate of 6s. 8d. If the rate of profit be 10 per cent, then the capital must be roughly one-fourth m. £. The Government of Madras having no surplus revenue, the capital must have been secured on the payment of five per cent interest on deposits, in which case the real profits of the Government banking is only five per cent. This "dabbling in deposits and discounts for five per cent profit on the part of a Government" has been adversely censured by Mr. Crawford who considered it "least praiseworthy on the part of the Government to waste precious time in attending to the concerns of a small money-shop."

Whatever amount of truth there might be in the ingenious calculations of Mr. Crawford we possess another reliable and authoritative estimate of the profits of the Government Bank. This was stated by the Accountant-General in a public document, and it is a mistake to suppose, as Crawford has done, that no public document as regards its operations exists. In 1819 a report was published with reference to the bank's past and present business. This report states that the bank was founded when there was great scarcity of specie, a failure of mercantile credit and considerable public and private distress. As a French invasion was feared, the bank permitted an accumulation of specie in the Treasury for military purposes and the withdrawal from circulation of a large quantity of paper money bearing interest. It proposed to be quite independent of the Government, but as a matter of fact it was clearly related to the Government and the scheme of re-organisation fell through. Its business for the Government consisted in purchasing bullion for the Mint and managed the remittance business to Bengal. It had no capital of its own and it is curious indeed that modern banking reformers quote the Australian Commonwealth Bank alone when they desire to start a Central Bank without any capital. This earlier instance is not referred to. In the very first year its note circulation averaged eight and a half lakhs of pagodas. Thirty-three lakhs of paper money bearing interest at eight per cent was withdrawn. Latterly

the bank had little connection with the Government save for little or small withdrawals of specie from the Treasury.

This bank was considered unsuited to the wants of the second Presidency in India and Mr. J. Ochterlony outlined the scheme for improving the bank and making it an institution modelled on the Bank of Bengal and the Bank of Bombay. The Madras Chamber of Commerce also took a prominent part in the agitation for the starting of a better bank. The capital of the new bank was to be thirty lakhs of rupees, of which three lakhs were to be offered to the Government.³³ On 4th July, 1840, the capital was fully subscribed and a memorial was sent to the Court of Directors for a charter of incorporation. The bank was actually started in 1843 as there was considerable delay in the matter of incorporation due to the request made by the public to reduce the capital to twenty lakhs.³⁴ The Court of Directors refused to consider this suggestion and considered it dangerous to grant wide privilege of note issue to an inadequately capitalised bank.

Though the Government Bank failed to organise mercantile and private credit on suitable lines, it did good service in those days when private banks did not exist to fill the void created by the failure of the earlier European banks, *viz.*, the Carnatic Bank, the British Bank and the Asiatic Bank. For obtaining a candid estimation of the services of the Government Bank the following quotation from the Madras Gazette would be of great use: "In its days it had been a great accommodation to the public, a safe depository for unemployed balances and a source from whom the man of principle and integrity has been relieved in a moment of necessity and upon which he has relied with confidence, but like

³³ See Financial Consultations, 16th June, 1840, Nos. 9—11.

³⁴ See Financial Consultations, 29th Nov., 1842, No. 17 & 9th May, 1843, Nos. 4 and 5. The Presidency Bank of Madras was started on lines similar to that of the Bank of Bengal. Act IX of 1843 gave the charter of incorporation and the new bank began its operations in 1843. Mr. S. A. Birch was the first Civilian Secretary. Later on he became connected with the Bank of Bombay which failed in 1866 crisis. See Financial Consultations, 23rd May, 1843, Nos. 17—19. Also 27th June, 1843, Nos. 28—30.

many other good things it has suffered from abuse of a system of dealing and procuring accommodation, the most injurious to the man of straightforward dealing and conscientious punctuality.”³⁵

THE GOVERNMENT SAVINGS BANKS

No other writer has evidently contradicted the description of Cooke as regards the working of the Government Savings Bank in the Presidency-towns—specially that of the City of Calcutta. The credit of starting the Government Savings Bank in the Presidency-towns in 1833 is usually attributed to Lord William Bentinck, but what really was done by him was only to extend the Government Savings agency of 1810 which was being managed by the Accountant-General and the Sub-Treasurer. Savings Banks were not unknown by this time. One such institution conducted its operations successfully in Serampore.³⁶ The failure of the agency houses created a void in the money market and there were many people who suffered acutely by their failure.³⁷ The Government Savings agency working since 1810 was empowered to extend its activities. By 1855 it was carrying on its transactions with all parts of the country by means of the District Treasuries under the supervision of the Collectors and the Divisional Paymasters. By the Act of XXVI of 1855 the Secretary to the Government Savings Bank was empowered with judicial powers. The Government Savings Bank was nominally under the supervision of the Accountant-General to the Government of India, but it was a separate establishment under an actuary who had to give both the bond of indemnity and security for the correct discharge of his duties. The usual practice was to credit deposits and debit withdrawals made at the District Collectorates and Paymasters' Treasuries on

³⁵ Quoted by the Asiatic Journal from the Fort St. George Gazette, Sep. 29, 1830.

³⁶ See Asiatic Annual Register, 1824, July 8, p. 192.

³⁷ See the Asiatic Journal, March, 1839, p. 198.

monthly returns forwarded by their officers. Repayments were made by the Savings Bank Secretary by orders on Collectors and Paymasters. It is recorded that the business of the Savings Bank was transferred to the Bank of Bengal in 1856.³⁸ Separate District Savings Banks were not created till 1870.

Since Cooke wrote his description of the Government Savings Banks it is commonly supposed that in 1856 the Bank of Bengal displaced the separate agency under Government orders published in the Calcutta Gazette of 27th January, 1855. It was not the management that was actually transferred. A reference to the proceedings of the Government of India in the Financial Department dated 22nd August, 1861, would however make it clear that the expediency of transferring the management of the Savings Bank to the Bank of Bengal and the proposed branch banks was considered in 1861. Though this proposal was agreed to by the Secretary of the Bank of Bengal, the Civil Paymasters of Fort William, and the Accountant-General, the Governor-General decided that the Bank of Bengal was to be utilised merely as the bankers to the Government Savings Banks and the management was however to continue as before under the Accountant-General and the Actuary. The Bank of Bengal continued as the custodian of the funds of the Government Savings Bank in Calcutta till September, 1863, when management also was handed over to the Bank of Bengal. Formal notice was served in 1886 on the Bank of Bengal that Savings Bank business might be withdrawn at any time on nine months' notice being given to it. Actual notice to the effect was served on the Bank of Bengal in 1895 and Symes Scutt records that it was actually transferred in October, 1896.

The Government Savings Bank in Calcutta became popular from the very early years of its start, and this was undoubtedly

³⁸ See C. N. Cooke's *Banking in India*, p. 341. The letter of the Financial Secretary to the Government of India of 18th Jany., 1856, gives the correct information but the separate managing agency was not established in 1856. Till 1863 the separate management existed and from Sep., 1863, the Bank of Bengal was paid monthly compensation of Rs. 750 for managing this business. See Symes Scutt's *History of the Bank of Bengal*, p. 67.

due to the great preparations and propaganda work done before its actual inception. A special committee consisting of the following gentlemen was appointed to organise a plan for the Government Savings Bank.³⁹

Names of the gentlemen who formed the Committee

P. M. Wynch, Esq., President.

J. A. Dorin, Esq.

C. E. Trevelyan, Esq.

Lieut.-Col. Kennedy.

Capt. H. B. Henderson.

Theodore Dickens, Esq.

Babu Ramkamal Sen.

This Committee can be considered as the first banking committee appointed in this country and the starting of the Savings Bank was recommended by it. Due to the persuasion of the Indian member of the committee—Babu Ramkamal Sen, Khazanchee of the Bank of Bengal—even the clerks of the Bank, Government public offices and Pilot Service began to deposit their savings. On the very first opening day there were nearly 62 deposits ranging from Re. 1 to Rs. 400. The total deposits amounted to about Rs. 3,828. The honour of being the first depositor falls to the happy lot of Baboo Dwarkanath Tagore and his son was the second depositor, each depositing about four hundred rupees mainly to set an example to the rest of the members of the Hindu community. During the first five years, viz., November, 1833, to November, 1838, there were 3,899 depositors with roughly about twenty-eight and one-fourth lakhs of rupees as deposits. By 1840 its gross operations amounted to 40 lakhs of rupees and about 18 lakhs of rupees were invested through its medium in public funds.⁴⁰ The

³⁹ See the Calcutta Courier, May 8, 1833.

⁴⁰ See the pamphlet—Remarks on the Savings Bank—which was published in 1840 or thereabouts. The anonymous writer of this pamphlet remarks that numerous branch banks of this parent institution be started at such places as Benares, Dacca, Patna, Allahabad, Cawnpore, Mirzapur, Saugor, Jubbulpore, Agra, Delhi, Bareilly, Furrackabad, Meerut, Ludhiana, Kurnaul, Saharanpore,

number of depositors exceeded 4,500 in number. The depositors' list included all classes of people. In 1842 the Government undertook the wise step of paying full month's interest on deposits made within the first four working days of the month. In 1854 there was the first reduction of the rate of interest payable on the deposits of the civil classes from 4 to 3 per cent per annum. The limit of all deposits for all classes was raised from Rs. 500 to Rs. 1,500 and the rate of interest for the deposits of the soldiery was reduced from four to three and three-fourths per cent.

It speaks volumes in favour of the first Committee of Management which regulated the business and modified the original rules in the light of actual experience gained during the course of the management of the first few years. As a repetition of the original rules guiding the business of the bank would occupy too much space, only a brief mention of the salutary measures leading to its actual success would be made. The bank was placed under Government responsibility⁴¹ and it was open to all classes of people without distinction. The Government reserved the power to raise or lower the rate of interest after six months' notice in the Calcutta Gazette. When the deposits of a depositor were to amount to Rs. 500, they were to be transferred to four per cent Government Loan on behalf of the depositor. Thus the habit of investment in Government Securities was also to be taught to these small savers. Again the enforcement of such sound regulations which exist even to the modern day in a modified form or other must be held responsible for the success of the Government Savings Bank. It was the laxity of management and absence of such rigid rules that were chiefly responsible for the failure of the Bengal Military Bank,

Almorah and Simla and other big towns. They would be secure places of deposit, afford inducement to industry, act as accumulators of capital, tend towards increased productiveness of labour and give increased facility for providing for physical wants to the depositors. A copy of this pamphlet exists in the Imperial Library and from internal evidence it can be gathered that Hon'ble F. Shore, the writer of two volumes entitled *Notes on India*, might have been the probable author of this pamphlet also.

⁴¹ See the Calcutta Gazette, Oct. 12, 1833.

which was a Savings Bank mainly intended for the military classes. This leads us on to the subject of the Bengal Military Bank whose general plan of work is outlined in the Selections of the Calcutta Gazette. But no other writer on Indian Banking has referred to its work and the reasons for its failure. It is for the first time that these details of their operations are collected from the contemporary newspapers and magazines.

THE BENGAL MILITARY BANK

The plan of the Bengal Military Bank was first devised by the Commander-in-Chief, and after securing the approval of the Governor-General in Council, the Bengal Military Bank was started mainly for the purpose of enabling the military officers to remit their monthly savings and to assist the Regimental Savings Banks which were in existence in Bengal by that time and to help the formation of several more Regimental Savings Banks by affording them proper means of investing their funds with security.

THE WORK OF THE BANK

The Bengal Military Bank was authorised to receive deposits from 1st January, 1821, from all military officers, Commissioned or Non-Commissioned or Warrant Officers or any other officers attached to the Military Service of the East India Company. The deposits (not less than ten Sicca⁴² rupees) could be made out of their pay or monthly allowances by sending an application to the Paymaster authorising him to deduct the stated sum from their pay. The form of application was as follows: —

⁴² The Sicca rupees became the standard money in Bengal by that time. It must be remembered that there were other denominations of rupees current in Bengal and Lord Cornwallis made a great effort to standardise the 19th Sun Sicca rupee as the unit of account in Bengal. By 1795 it was established as the standard money of Bengal. See the Selections from the Calcutta Gazette which reproduce the Government Notification on this subject: Fort William, Public Department, Oct. 24th, 1792. The intrinsic value of the different species of rupees current in Bengal, Behar and Orissa compared with the Sicca rupee from assays made in Bengal, is quoted in a tabular form in the Notification.

Deduct from this pay-bill and remit to the Military Bank as follows :—

For Captain	one hundred Sicca Rs. ...	100
For Lieutenant	fifty Sicca Rs. ...	50
For Serjeant	ten Sicca Rs. ...	10
		<hr/>
Total Sicca Rupees ...		160
		<hr/>

Signature of the Captain.

The Paymaster had to remit this sum to the Secretary of the Bengal Military Bank stationed in Calcutta by a bill of exchange on the Accountant-General drawn in favour of the bank. A detailed statement was also to be sent to the Accountant-General and the Memorandum was to state in full the details, *viz.*, amount of deduction from the pay, Battalion, Regiment, for the month of....., year, to be remitted to the Bengal Military Bank. In addition to this deduction from pay individual depositors could remit savings directly to the Secretary of the bank.

MANAGEMENT OF THE FUNDS

The General Military Bank in Calcutta was to lend these funds to the best advantage on the pledge on deposit of Government Paper, public bank shares and other good securities so as to realise the highest rate of interest consistent with perfect safety.

OFFICERS OF THE BANK

Twelve directors were to be in charge of its operations. The Government had the right to nominate three out of twelve and the remaining were to be elected by the constituents of the bank at the Annual Meeting to be held in the month of January. The ex-officio Government Directors were (a) the Adjutant-General of the Army, (b) the Military Auditor-General, (c) The Accountant, Military Department. The first batch of directors for the year

1821 was nominated by the Government. The first directors were the following:—

- (1) Col. J. Nicholls, C. B., Quartermaster-General, His Majesty's Forces.
- (2) Lieut.-Col. J. Paton, Quartermaster-General of the Army.
- (3) Major L. Wiggins, Assistant Military Auditor-General.
- (4) Major C. H. Campbell, Deputy Secretary to the Government, Military Department.
- (5) Captain R. H. Sneyd, 1st Regiment of Cavalry.
- (6) Captain W. S. Beatson, Assistant Adjutant-General of the Army.

Besides these military officers expert banker-merchants and partners of the agency houses and a civilian officer were recommended to the Board of Directors:—

- (7) John Palmer, Esq.
- (8) George Cruttenden, Esq.
- (9) James Young, Esq.

Mr. Ballard of the firm of Messrs. Alexander and Company was appointed as the Hony. Secretary and was authorised to appoint House Treasurers to the Bank.

REGULATIONS FOR OFFICE BUSINESS

The following were some of the most important regulations or bye-laws of its business:—

(1) The Treasurers have to keep the bank accounts in a separate set of books which would have to be produced at the time of the meetings of the Directors or at any time.

(2) By the 5th of every month the Secretary has to furnish the receipts and disbursements and suggest the best methods for investing the floating balances.

(3) All bonds, deeds, mortgages or other papers and documents having reference to pecuniary transactions and being bank stock or securities are to be made out in the names of the Directors; but mere receipts may be signed by the Secretary for the Treasurers.

(4) There shall be quarterly meetings of the Directors for inspecting the accounts and such other business as may be brought before them. Special meetings when required for urgent business may be summoned by the President or any other Directors.

(5) The signature of three Directors was considered adequate to sanction any measure and to authenticate any account.

(6) The office of the President was to be annual and three Directors had to go out annually by rotation. The Directors were to select the President and the three seats to be vacated annually were to be filled up by the votes of depositors.⁴³

The most important thing to be noticed is the fact that the bye-laws do not give any loop-hole to the officers to mismanage the funds. They were also framed with the view of expediting business on sound lines and the permission for the depositors to elect three directors annually was evidently in the interests of securing the continuity of policy so eminently desirable in the case of all savings banks.

RULES FOR DEPOSITORS

The following were some of the salutary provisions with reference to depositors' business:—

(1) Remittance must be made in Sicca rupees. Each remittance must be for a minimum figure of ten Sicca rupees and should not contain any fraction of a rupee.

(2) Bills drawn by depositors not in excess of actual deposit will be honoured at any time. But to facilitate business bills will be payable only at two fixed periods, *viz.*, 15th January and 15th July. Officers going on leave will be allowed to draw any portion of their deposits by bills at ten days' sight.

(3) The aggregate deposits are to be treated as joint-stock and vested in Government Securities. Profits arising out of this will be divided among shareholders according to their respective proportion and carried to the credit of their accounts.

⁴³ See the Selections from the Calcutta Gazette, Vol V, pp. 61-66.

(4) Half-yearly drafts of the shareholders below 1,000 Sicca rupees will be paid in cash; if greater than that, it is left to the option of the Directors to pay it by transferring a portion of the stock at the rate at which it was purchased or at the rate of the day or at par as may appear most equitable.

A perusal of the above rules will make it clear that they were well-conceived and it is a wonder why this bank failed in spite of such wise bye-laws and regulations framed in the interests of the depositors.

ACTUAL OPERATIONS

By the end of 1833 there were 402 accounts of depositors and the assets of the bank amounted to Rs. 6,20,540, all of which, excepting a floating cash balance of Rs. 11,320-14-7 deposited in the Bank of Hindostan, was represented by mortgages of house property. But as mortgages depreciated—specially that on the house of Sheikh Abdulla—a loss of one-sixth was made from the depositor's accounts by transfer to a special account in 1880, being then estimated at about Rs. 1,60,000. In 1833 about two lakhs had to be struck off and another half-lakh, as other mortgages depreciated. This reduced the value to Rs. 3,75,000. From this sum again about Rs. 75,000 had to be deposited to pay arrears of dividends to depositors. So three lakhs remained to be divided among all the depositors whose claims amounted to 10 lakhs of rupees.

REASONS FOR FAILURE

The main loss to the bank was solely due to depreciation of the house property and the sad mistake committed by the bank in preferring this type of security to all others. There was an entire sacrifice of the principle of the spreading of investments of the banks. The depositors congratulated themselves on their good fortune for not having lost their property, which fate befell all the depositors of the agency houses which failed just at that time. Even if we refer to contemporary history of Savings Banks in the

United Kingdom we meet with similar failures of these institutions. Many of these started in the early years of the nineteenth century from 1817—1841 failed as a result of series of frauds in the management which swallowed a quarter of a million of the hard-earned savings of the poor. The first postal savings bank was opened only in September, 1861, as a result of Mr. Gladstone's efforts in this direction.

The expenses of the bank amounted to roughly Rs. 150 a month. There was thus no sacrifice of the sound canon of economy in the management of the banking institution.

Although the Government appointed three *ex-officio* Directors to help the Board in the management of the business, yet there was no other responsibility on the part of the Government arising out of the failure of the mortgages. The Government Directors were indeed negligent in the matter of not insisting upon a prompt recall of all loans as soon as they realised the depreciation of the mortgaged property. They also tolerated the laxity of the officers in respect of collecting all arrears in the matter of interest on the part of the defaulting borrowers. There was no attempt at foreclosing the mortgages and selling the property. The Government itself never communicated the fact of mismanagement to the depositors. From a contemporary paper⁴⁴ of this period it can be gathered that the Government originally intended to inform the depositors that there was no Government security behind the institution, but this was not communicated even though it knew or had an inkling of the mismanagement of the Bengal Military Bank. One of the Directors, one Captain Rawlins, suggested to the other depositors the possibility of bringing a civil suit against the Government for this mismanagement. Two leading barristers were consulted on this point of Government responsibility. On their advice the suggestion of instituting legal proceedings against the Government was ultimately dropped. Most of the aggrieved depositors belonging to the 38th Regiment, privates as well as non-

⁴⁴ See the Bengal Harkaru, May 7, 1835. Quoted by the Asiatic Journal.

commissioned officers, sent in a monster petition to the Government praying for mercy and refund of money. But nothing came out of this appeal.

The next mention of the Bengal Military Bank is made on 20th May, 1835, when it was stated that 60 per cent of the deposit money was paid to the depositors. The last mention of the Bengal Military Bank was made in 1838 (March) when a further declaration of dividend of five per cent was made. It was also decided that the "remaining properties were to be put to auction early next month and it was expected that the proceeds will realise sufficient to give the depositors a further dividend of twenty per cent, making a total dividend, say, of 12 annas in the Rupee."⁴⁵

The history of the Bombay Military Bank⁴⁶ is an uneventful one. It was started in July, 1829, and as soon as the Government Savings Bank was instituted in May, 1835, the Bombay Government soon closed the Bombay Military Bank and gave the option to the depositors of transferring the account including the interest to the Government Savings Bank or withdrawing it altogether and all interest would be discontinued from 1st May, 1839.⁴⁷ Lack of space compels me to pass over the work of the Madras Military Bank.⁴⁸

THE NATURE OF THE MILITARY BANKS

An attempt has been made to describe the methods and procedure of the Military Banks. From the above description it is apparent that they were no commercial banks issuing notes or post-bills intended for the accommodation of gentlemen living at or going to other settlements than Calcutta. They did no regular banking business, nor purchase bullion. They did not receive

⁴⁵ See the Asiatic Journal, 1838 (March).

⁴⁶ For an abstract of the statement of the affairs of the Bombay Military Bank, 1836-37, see the Asiatic Journal, July, 1838, p. 151.

⁴⁷ See the Government Notification dated 11th March, 1839, of the Bombay Castle. Quoted in the Asiatic Journal, June, 1839, p. 147.

⁴⁸ See the Madras Manual of Administration, Vol. I, 1886.

deposits to be repayable at sight. Thus it appears that they were pure savings banks intended to promote savings on the part of the military officers under the service of the East India Company. They resemble closely the modern philanthropic or trustee savings banks. It was the result of the attempt on the part of the Government to improve the economic condition of the military classes. All the earnings after deducting the necessary expenses were to be divided among the shareholders in the form of interest which is to be credited to their accounts. The Government Directors can be compared to the trustees who operate the modern trustee savings banks without taking any remuneration. Just as the modern trustee savings banks are safeguarded from unexpected calls on the part of the depositors, so also the Bengal Military Bank established the convention of paying the drafts of the depositors half-yearly. The banks were thus quite simple in character and confined themselves primarily to the business of collecting money and investment of the same without any risk. Thus their main business was to transfer capital and the manufacture of bank money was not their object. They had only the aim of redistributing capital amongst the points of highest yield but yet safe at the same time. The economy yielded by the banks was the maximising of the earning capacity of the capital placed in their hands. They must also be considered as the legitimate forerunners of the Government Savings Banks which were later on established in the Presidency-towns between 1833 and 1835.

The correct and complete list of banks of this period started either by the Government or by the European settlers in this country would be as follows:—

Name of the Bank	Date of Formation	Branches	Head Office
The first Government Bank of Madras.	1683	Nil.	Madras
The first Government Bank of Bombay.	1720	Do.	Bombay
The Bank of Hindostan ...	1770	Do.	Calcutta
The General Bank (Government Bank of Warren Hastings).	1773	Hugli, Nadia, Jessore, Burdwan, Midnapore, Birbhum, Bishnupur, Murshidabad, Pachiti, Dacca, Rajmahal, Dinajpore, Purnea, Rungpur, Bhagalpore.	Ditto.
The Bengal Bank ...	Exact year not known — in existence by 1784.	Nil.	Ditto.
The General Bank of India	1785	Do.	Ditto.
The Carnatic Bank ...	1788	Do.	Madras
The British Bank ...	Exact date not known — in existence in 1795.	Do.	Ditto.
The Asiatic Bank ...	Ditto	Do.	Ditto.
The second Government Bank of Madras.	1805	Do.	Ditto.
The Bank of Calcutta ...	1806	Do.	Calcutta
The Bank of Bengal ...	1809	No branches excepting agencies till 1861.	Ditto.
The Commercial Bank ...	1819	Nil.	Ditto.

Date of Closing	Remarks
Not known ...	Bank of deposit alone.
Not known (in existence in 1724).	Originally planned as a Bank of Issue.
Failed in the "awful crisis of 1831."	Symes Scutt mentions the fact of its reorganisation and its failure in 1868. But contemporary papers speak of its failure. They make no reference to this reorganisation. Symes Scutt does not give the source of his information, nor does he quote any details of its operations after its reorganisation.
Closed in 1775 ...	No failure of the bank, but owing to opposition in the Council it had to be closed.
Failed in 1891 ...	Stringency due to War-financing in the Calcutta Money Market might have led to its failure.
Failed in 1791 ...	Wound up according to terms of reorganisation. It was not reorganised as Cooke suggests. The very bank building was sold in 1791. (See Carey's Annals of Hon'ble John Company.)
Exact date not known ..	Might have failed as a result of the competition of the Government Bank organised in 1805.
Ditto.	Ditto Ditto
Ditto.	Ditto Ditto
Wound up or reorganised as the Presidency Bank.	No failure, but reorganised as a result of Commercial agitation to have a more useful bank.
Rechristened as the Bank of Bengal.	No failure, but on receiving the Charter in 1809 the Government Bank as it was called became the Bank of Bengal.
Amalgamated with the other Presidency Banks.	No failure, but as a result of amalgamation it has become the present Imperial Bank of India.
Exact date is not known —1833.	Being started by the agency house it must have shared its fortune. Displaced by the Union Bank.

Name of the Bank	Date of Formation	Branches	Head Office
The Bengal Military Bank	1821	Nil	Calcutta.
The Calcutta Bank ...	1824	Do.	Ditto.
The Bank of India ...	1828	Do	Ditto.
The Military Bank of Bombay.	1829	Do.	Bombay
The Madras Military Bank	...	Do.	Madras
The Union Bank ...	1829	Singapore and Mirzapore.	Calcutta
The Agra & United Service Bank.	1833	Calcutta, Bombay, Madras, London, Lahore, Canton.	Originally at Agra, soon transferred to Calcutta.
The Government Savings Bank.	1833	Ditto.	Presidency town.
The Bank of Mirzapore ...	1835	Nil	Mirzapore
The North-Western Bank of India.	1840	London, Calcutta, Bombay, Delhi, Cawnpore, Simla, Mussoorie.	Originally at Mussoorie; then transferred to Calcutta.
The Bank of Bombay ...	1840	No branches till 1862.	Bombay
The Bank of Ceylon ..	1840	Agencies at Colombo, Madras, Bombay, Branch in Kandy.	Colombo
The Bank of Western India.	1842	Colombo, Calcutta, Hongkong, Singapore.	Bombay; removed to London in 1846.
The Agra Savings Fund ...	1842	Nil	Agra
The Bank of Madras	1843	No branches before 1860.	Madras

Date of Closing	Remarks
Wound up in 1836 ...	Failed as a result of depreciation of investment of real estate and house property.
Wound up to give place to the Union Bank.	On the ashes of the agency houses rose the Union Bank and the other banks wound up their business to give place to the reorganised institution
Failed in 1829 ...	Could make no headway in the market as the organisers had no solid backing to support them in their endeavour.
Wound up in 1839 ...	It was amalgamated with the Government Savings Bank in Bombay.
...	Ditto ditto.
Failed in 1848 ...	For a decade it competed successfully with the Bank of Bengal but mismanagement after 1839 led to its failure.
Winding up in 1894 ...	Symes Scott says that it failed in 1900. He again mentions no authority for his statement.
Taken up by the Government Post Office in 1896.	No failure, but management changed hands in 1896 from that of the Bank of Bengal into the hands of the Govt. Post Office.
Failed in 1836 ...	Clear proof of the fact that the people in the interior could not appreciate the services of banks.
Liquidated in 1859 ...	The management of this bank can be considered a typical example of bank mismanagement.
Amalgamated with the other Presidency Banks.	It has become a part of the Imperial Bank of India.
The Bank amalgamated with the Oriental Bank of London in 1849.	As a result of amalgamation, the reconstituted unit came to be known as the Oriental Banking Corporation.
Did not fail ...	To secure the privileges of 1845 Act of the United Kingdom removed its head office to London and became the Oriental Bank in 1846.
Date of closing not known.	It might be that with the advent of Government Post Office Savings Bank it might have lost its business.
Amalgamated with the other Presidency Banks.	It forms part of the present Imperial Bank of India.

Name of the Bank	Date of Formation	Branches	Head Office
The Delhi Banking Corporation.	1st October, 1844. Incorporated in 1860.	London, Calcutta, Bombay, Allahabad, Lucknow, Mussoorie, and Madras.	Delhi
The Simla & Umbella Bank.	1st November, 1844.	Umbella ...	Simla
The Cawnpore Bank ...	1st May, 1845.	No branches ...	Cawnpore
The Benares Bank ...	1st August, 1845.	Ditto.	Benares
The Oriental Bank ...	1846	Board of Directors in Bombay; branches at Calcutta and Colombo.	London
The Commercial Bank of India.	1845	Calcutta, London, Canton and Shanghai.	Bombay
The Dacca Bank ...	1846	Nil	Dacca
The Comptoir d'Escompte of Paris.	1848	Branches in Calcutta, Bombay, Madras and Pondicherry.	Paris
The Oriental Banking Corporation.	1849	Branches established in Scotland, Mauritius, Melbourne, Sydney, Galle.	London
The Chartered Bank of Asia.	1852	No branches ...	London
The Chartered Bank of India, Australia & China.	1853	Calcutta, Bombay, Rangoon, Singapore, Hongkong and Shanghai.	London
The Mercantile Bank of India, London & China.	1853	Branches in Ceylon, Colombo and Candy; agencies at Canton, London, Shanghai and Calcutta.	London
The London & Eastern Banking Corporation.	1854	Calcutta and Bombay.	London
The Chartered Mercantile Bank of India, London & China.	1858	London, Calcutta, Madras, Singapore, Colombo, Hongkong, Shanghai, Kandy, Mauritius, Penang, London and Canton.	Bombay
The Central Bank of Western India.	November, 1860.	Calcutta ...	Bombay
The Uncovenanted Service Bank.	1846	No branches ...	Agra

Date of Closing	Remarks
Exact date of failure is not known.	As a result of the successful working of the Alliance Bank of Simla this bank might have lost its business.
Failed in 1893 ...	As a result of its failure the void could be easily filled up by the progressive Alliance Bank of Simla.
Failed in 1851 ...	This bank can be considered as a glorious example of bank mismanagement so common at that time.
Failed in 1850 ...	This bank should not be mistaken for the present Bank of Benares. Another splendid example of incompetent management.
Amalgamated with the Bank of Ceylon in 1849.	In order to secure note-issue this amalgamation was carried out.
Failed in 1866 ...	It took active part in speculation which was so rife in Bombay at that time.
Amalgamated with the Bank of Bengal in 1862.	It had purely restricted business.
Still working ...	The first strong foreign exchange bank to set foot into this country.
Failed in May, 1884 ...	... ..
Dissolved in Nov., 1856...	The Colonial Office did not favour it with a Charter to its own liking when it suggested amalgamation with another bank.
Still working ...	... ..
Wound up in 1857 ...	It was amalgamated with the Chartered Bank of Asia to form the Chartered Mercantile Bank of India, London & China.
Failed in 1857 ...	... ..
Wound up in 1892 ...	The assets and liabilities were handed over to Mercantile Bank of India, Ltd, in 1892. the
Amalgamated with the Bank of Hindostan, China & Japan.	... ..
Wound up about 1894.	... ..

It must not however be supposed that this list is an exhaustive one. All that can be claimed for it is that it is more exhaustive than that of the other lists mentioned in the early beginning of this chapter. The writer has come across various statements made by authoritative people of the attempts made to start banks in the interior. Messrs. Alexander & Co. which founded the Bank of Hindostan in 1770 in Calcutta also strove to start a similar institution in the interior. One Mr. Ballard, a medical man of considerable skill, was entrusted with the banking business of the bank started at Bhauleah. It did not succeed and had to be given up.⁴⁹ Similarly an attempt was made on the Bombay side in the first half of the eighteenth century by the Dutch people to start a bank. Apart from the fact that it worked for a few years no details are forthcoming. It must also be realised that this list does not include a large number of banks which were started as soon as the limited liability principle was accepted in 1861 and 1862. The Punjab Bank, Ltd., the Sind, Punjab and Delhi Banking Corporation, Ltd., the People's Bank of India, Ltd., and the Bank of Rohilkand were organised during these years—1861 and 1862. All these banks are enumerated by C. N. Cooke in his *Banking in India* but they lie outside the scope of our survey.

THE AGENCY HOUSES

Some information has to be given of the agency houses conducting semi-banking business along with trading and agency work. They were not only bankers attracting deposits and granting loans but “European shop-keepers, planters, ship-owners, proprietors of breweries, tanneries, distilleries, cotton, flour and saw-mills.” It is not wise to put them out of the category of financial intermediaries of this period, for in those days when the European banks were few and few Europeans were allowed to settle in the country, it is these that conducted semi-banking business and

⁴⁹ See Holt Mackenzie's Evidence before the Select Committee of the House of Commons, March, 1832, questions 133 to 137.

founded pure banks to deal in a more comprehensive manner with the banking needs of the population. It is tolerably clear then that an account of their operations should be given as they were the pioneers of the banking trade in this country.

Crawford says that the agency houses had originally no capital of their own and they depended on the great annual savings of the Company's servants.⁵⁰ This can be corroborated by another statement of an equally competent observer, who says "that the agency houses were started chiefly of gentlemen who had been in the civil and military services who finding their habits better adapted for commercial pursuits obtained permission to resign their situations and engage in agency and mercantile business. They received the accumulations of their friends in the Company's service. They lent them to others or employed them themselves for purposes of commerce—they were in fact the distributors of capital rather than the possessors of it. They made their profit in the usual course of trade and by difference of interest in lending and borrowing money and by commission. In course of time, carrying on successful commerce many became the possessors of large capital and returned to England having most part of it there. The agency houses became the usual depository of a great portion of the savings and accumulations of the civil and military services in India."⁵¹

Although it is the above quotation alone that recent writers have been making use of, not one of them has given an idea of their real operations. More detailed information is available in the newspapers and magazines of that time. These describe not only the operations of these agency houses but try to place before the readers a description of the economic environment of this particular period. It was not the Company's servants in Bengal alone that were the sole depositors of their savings in the hands

⁵⁰ See J. Crawford's *Sketch of the Commercial Resources and Monetary and Mercantile System of British India*, 1837.

⁵¹ See the Evidence of T. Bracken before the Select Committee of the House of Commons, March, 1832.

of the Calcutta agency houses. The officers of the Madras and Bombay Provinces remitted their savings to the agency houses at Calcutta. The natives of Calcutta also deposited their savings in their hands, for roughly ten per cent was granted on these deposits. As the Government funds, *i.e.*, new loans did not pay this high rate and as this rate of interest fell from ten to five per cent, the deposits of the agency houses must have increased:

The money secured in this way was loaned out to people engaged in indigo business, silk or opium and cotton. Their *modus operandi* can be easily gathered by noting the way in which they helped the indigo planters. Their transactions with the indigo planters can be considered as typical of their operations. Twelve per cent was the rate at which money was usually loaned out to them. It could not have been higher than that, for the legal rate of interest could not rise above twelve per cent. But several other charges were however added, *viz.*, a charge of one per cent for receipts and disbursements.⁵² Money was advanced to the planter monthly as subsistence allowance or money and petty charges were made on this amount. The produce had to be sent to the money-lending agent and the borrower had to pay commission for receiving and disposing it of. Altogether the rate they had to pay was about 18 per cent or 20 per cent on the borrowed money. Even in the matter of loans to civil and military officers the proceedings were of the same character. Twelve per cent was the legal rate that could be charged but charges had to be paid for receipts and disbursements. The borrowers had to insure their lives, and for this the annual charges made, amounted to the premium. Even this premium they never paid to the Life Insurance Office preferring to take the risk themselves, so that it was only a trick to raise the interest rate little higher. This was how they always avoided the usury laws of the time.

It was not the ancillary banking business that has made them famous. Like the indigenous bankers of the time they attracted

⁵² See Hon'ble F. J. Shore's Notes on India.

deposits and lent them. But these financial activities were overshadowed by those of the merchants, middlemen, brokers and industrialists. The partners of these firms could afford to live in "princely fashion" and in "the highest style of luxury." Notwithstanding this lavish expenditure they often returned home with the most princely fortunes.⁵³ They could afford to become 'the mercantile leviathans of the East.' They combined in their hands the part of several characters in addition to the role of bankers. They were bankers, shipowners, merchants, and agents and possessed a complete "monopoly" of the whole of the foreign and internal trade of the country which was then about six times as large as the British Isles.

THEIR NUMBER

As to the exact number of the earlier agency houses nothing definite can be stated. But Hon'ble F. J. Shore says "that six or seven of these agency houses stood conspicuous in the City of Palaces." Crawford writing in 1837 gives us a list of the firms at the different trading centres. But several of them might have been created after 1813. With the opening of trade with India by the 1813 Charter Act the English merchants could send their own agents "who had moderate ideas and moderate salaries." It was the serious competition of these new houses that must be reckoned as the chief cause of the failure of the older agency houses which still continued to live in "aristocratic fashion" without contracting their speculative dealings, reducing their

⁵³ Of the dividends paid by the older agency houses an idea can be gained by a perusal of the following dividends declared by them :—

Name of the Agency House	Rate of Dividend paid.
Palmer & Co.	30 p.c.
G. Mackillop & Co.	26 p.c.
Alexander & Co.	6 p.c.
Fergusson & Co.	36½ p.c.
Mackintosh & Co.	14 p.c.
Colvin & Co.	29½ p.c.

See the Calcutta Review, Jan.—June, 1847, pp. 163—189.

establishments and retrenching their personal expenses.⁵⁴ They continued their mercantile speculations as before in the same old style, investing freely in houses in Calcutta, indigo works, coal-mines, ships, coffee, and spice plantations, clearing desert islands as proprietors of land and working cotton, silk and flour mills. By 1825 their position became very risky so that a competent observer Mr. Trotter suggested the formation of new agency houses in place of the defective old ones.⁵⁵ Nothing came out of his suggestion.

CAUSE FOR THEIR FAILURES

The immediate cause for their failures was the withdrawing of money by their constituents on the pretext of sending remittances to Europe. After the failure of Palmer & Co. this became insistent and the agency houses borrowed by pledging property to satisfy the banking constituents' withdrawals. Their correspondents in England generally failed to honour their bills drawn on them by the agency houses; and when this credit was refused, they lost all banking business.⁵⁶

THE MAGNITUDES OF THE CATASTROPHE

Messrs. Palmer & Co. was the first Company to fail, and in spite of State support they could not withstand the shock. This failed in 1830 and the rest of the "princely mercantile houses" followed suit. It was Mr. Palmer of Palmer & Co. that was styled the "Prince of the Calcutta Merchants" and earned for himself a statue or bust in the Calcutta Town Hall. Its bankruptcy was followed by Alexander & Co., Cruttenden & Co. and others. The general ruin that befell the depositors of the city

⁵⁴ See J. W. MacLellan's article on Banking in India, *Banker's Magazine*, 1893, pp. 50—58.

⁵⁵ See *Asiatic Journal*, Dec. 1825, p. 617.

⁵⁶ Compare Crawford's estimate with that given in the *Calcutta Review*. It is Crawford's estimate that is quoted by C. N. Cooke, p. 348.

was almost unparalleled. It caused unheard-of ruin to widowers and pensioners who had embarked their all in these houses, depending with confidence on the security of baits held out in large interest for money invested in their firms. The effect of the ruin of the agency houses did not fall mostly on the partners of the agency houses, for most of them realising the storm coming ahead returned home with fortunes, leaving penniless adventurers to take their place in the fallen agency houses. Macaulay who landed in India just after the failure of the agency houses refers to the monetary stringency in the money market and its effect on the style of living of the Company's officers.

A LESSON FROM BARDOLI

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The Bardoli episode has once more thrown into bold relief the serious difficulties that surround the proper assessment of land-revenue in India and the fundamental difference of opinion that prevails on the subject between the Government and the public. The constitutional, the administrative and the political aspects of the problem usually loom large before our eyes, but the purely economic significance of the methods of assessment of the land-tax is not less important. It is necessary to remember that in the controversies which have raged and are at present raging with regard to the revision settlements of the land-revenue of talukas and groups of villages in the Bombay and Madras Presidencies, the State's right to levy the land-tax and to enhance its amount in certain conditions, is not disputed. What is in dispute is the fundamental principle which ought to govern the assessment of the tax. Is the increase of revenue levied or proposed to be levied by Government, justified by the circumstances of each case? This is the question that is pointedly asked, and no satisfactory answer can be given to it unless a definite standard and an intelligible and a well-recognized measure are available for the purpose. It is true that difficulties will not end with the discovery and the acceptance of such a general criterion which will guide the assessment. But it will certainly go a long way in assuring a large measure of security and justice.

It is, of course, not to be supposed that revenue assessments have been fixed in the different Provinces in the past without some such guiding principle, or that this whole problem has not

been discussed from the theoretical as well as the practical side. Lord Curzon's famous resolution of more than twenty-five years ago and a similar resolution which is soon expected from the Government of India, are sufficient evidence in this behalf. Further, as recently as five years ago, the Taxation Inquiry Committee went into the whole question and made its own recommendations. Since then, a committee of the Bombay Legislative Council has made a report on the correct principle of revenue assessments, and a similar committee is at present working in Madras. Differences of a fundamental character have, however, emerged in the course of these discussions, and the question is, as it were, still open as to what should be the basis of the claim of the State to a share in the agricultural produce or income of the cultivator. In Provinces where the Government takes a stated share in the actually realized rents of the landlords, there is not much difficulty experienced, though even there the revenue officers attempt to ascertain what a fair rent for each acre of different classes of land ought to be. A very good account of the land-revenue systems prevailing in the different Provinces may be found in the report of the Taxation Inquiry Committee which was, however, itself divided in opinion as to the nature of that revenue, *viz.*, whether it is a tax or a rent and which was forced to the conclusion that "the uncertainty as to both the basis of the assessment and the rate is one of the chief respects in which the systems are open to criticism." We shall refer to the recommendations of the Committee in this behalf presently, and shall first discuss the fundamental issues of economic theory which have arisen in the course of the controversies relating to the trouble in Bardoli and elsewhere.

The complaint of the people of the Bardoli and Chorasi talukas was, in the main, that "the enhancement of revenue recently made is not warranted in terms of the Land Revenue Code" and that the data relied upon were wrong. It is interesting to note that the wording of the law which embodies the basic principle underlying the assessment of land-revenue in Bombay is indefinite and

vague in the extreme, as it lays down that "in revising assessments of land-revenue, regard shall be had to the value of land, and in the case of land used for the purpose of agriculture, to the profits of agriculture." The uncertainty which surrounds the precise intentions of law is commented on by the two officials who made the Bardoli enquiry in the following words:—"The most remarkable thing about this provision is its vagueness. It does not attempt to define what is meant by 'profits of agriculture,' an expression which is capable of various interpretations. It does not say how the profits are to be ascertained, nor what share the State is to take of them when ascertained. The words 'have regard to' are also noteworthy. The assessment, it appears, is not necessarily to be based on the profits of agriculture. At any rate, there is nothing in the section inconsistent with the view that the State has a legal right to levy some assessment, whether or no the present occupants of the land make a profit out of it." In spite of this vagueness or elasticity of the provision of the law on the subject, revisions of revenue came to be gradually based upon certain general ideas which represented more or less workable criteria. The Taxation Inquiry Committee sums up the position thus:—"Except in British Baluchistan, the land-revenue has ceased to represent a portion of the gross produce. In the United Provinces, the Punjab and the Central Provinces the Government demand is theoretically based on economic rent, but actually takes many other factors into consideration. In the case of Madras and Burma the assessment is theoretically based on the net produce, while in Bombay the rate of assessment is arrived at empirically with reference to general economic considerations, and in practice is based rather on actual rents paid than on any theoretical calculations of the net produce." The Bombay Committee referred to above, was sharply divided in its opinion, the official portion of it insisting that "rental value," where it can be ascertained, should be adopted as the sole basis for fixing the assessment, other considerations being regarded merely as subordinate factors in the problem, while the non-officials held that "profits of agriculture"

or rather "profits of cultivation" should be made the sole basis. The Government of Bombay accepted the view of the official members which, it thought, embodied the existing principle governing the settlements in Bombay. The officials of the Bardoli inquiry concluded that there was no substantial difference between the basis of assessment proposed on the one hand by the Taxation Inquiry Committee, *viz.*, "annual value," that is, "the gross produce less cost of production, including the value of labour actually expended by the farmer and his family on his holding, and the return for enterprise" and that of "rental value" adopted by the Government of Bombay, and on the other, the basis proposed by the people's representative in Bardoli, *viz.*, "the profits of agriculture" as ascertained by taking the yield, multiplying it by the price and deducting therefrom the expenses of cultivation, including the wages of the farmer and his family. And all this was, further, not inconsistent with the provision of Section 107 of the Land Revenue Code mentioned above. In recognizing rental value as a reasonable basis of assessment, the writers of the Bardoli report, however, added an important caveat, *viz.*, "provided that value has been properly ascertained." There was the rub. In the case of Bardoli it was found that rental value was not properly ascertained and the increase of assessment proposed on the strength of such defective rental value was rejected.

As between profit of agriculture and rental value as a measure of capacity to pay land-revenue, special preference has been shown in Bombay to the latter on the plea that it is a simple, an easily intelligible and a thoroughly reliable measuring rod, and the use of this instrument has been developed into an art. The difficulty of ascertaining true economic rents cannot, however, be too much emphasised, and the Bardoli report very properly attaches great importance to this vital part of the work of assessment. It says:—"Rental value is not the same thing as rents, and does not emerge from a mere enumeration of the rents actually paid or agreed upon." Rents contain so many foreign elements, *e.g.*, interest, remuneration for risk of non-payment, personal convenience and social

advantage. In support of the proposition that rental value and profit of cultivation are one and the same thing, it is urged that a man would not pay Rs. 50 as rent unless he expected to clear that amount as a surplus over his cost of production, and similarly the sale price of land may be taken as a reliable index of rentability as that price is only the capitalized value of the rent. Attention may be drawn in this connection to the several instances which have been quoted in the Bardoli report to show how proper care was not taken to compile, scrutinise and use different statistics on which reliance was placed for supporting an increase in assessment. What is more important, these instances are calculated to demonstrate the extreme difficulty and danger of using rental statistics to ascertain rentability or rent-paying capacity of the cultivating landowners. In view of the characterization given by a Bombay revenue authority that "rental value is a sublimation or abstraction from actual rents of all sorts,"¹ the following instances quoted in the Bardoli report will be found instructive:—"In most of the villages we visited, it was suggested that tenants had paid high rents because the land taken on lease adjoined their own land, or was in the vicinity of their houses, or had some other special advantage from their point of view. Cases of this kind are so numerous that they can hardly be called exceptional, and it would seem that a man who wants to let his land can generally find some one with land near to rent it. However, the possibility that the rents paid in such cases may be in excess of the economic rent (as experience shows it may be, whatever the text-books may say) cannot be altogether ignored, if it is desired to make rentals the basis of assessment. Occasionally the special circumstances are such as to vitiate a lease altogether as evidence. Take a case like S. N. 579 (3) in Kamalehhed, 25 g., Re. 1-10, which the owner of the adjacent land rents for Rs. 10, not because he wants it, but because he must have it to prevent cattle trespassing on his land. Or this case: S.N. 511 of Adajan, 27g., Rs. 10, rented for Rs. 50. This

¹ Anderson : "Facts and Fallacies about the Bombay Land Revenue System."

is grass land with two *bor* trees in it, but it also contains a well of good drinking water, and the Parsee owner of the adjoining toddy-palm grove, whose servants formerly used the well for nothing, now has to pay a high rent for the field in order to secure the water. (The Settlement Commissioner, by the way, mentions this survey number in the appendix to his report as an instance of the high rents realised in Adajan.)”

The last sentence in the above-quoted lengthy extract as well as the parenthetical reference, a few lines earlier, to probable opposition between actual facts and abstract theory, deserve special attention. It can be argued from a purely abstract point of view that the Parsee landowner in the second instance quoted above, pays a comparatively large amount of rent, *viz.*, Rs. 50 instead of Rs. 10, because he secures a special advantage, a special service, from the piece of land concerned, and as rent is nothing but service and value is determined by service, the rentability here is unusually high. And in the process of abstraction or sublimation, this high rent increases the average rental figure for the village and, therefore, the land-revenue demand for the whole village. The evils of abstract economic theory, mechanically applied to vital human affairs, it will be seen, are evident in the case of the Bardoli settlement as elsewhere in life. Even making allowance for the defective character of the statistics compiled, the question remains whether the Settlement Commissioner was justified in supporting his proposals about increase of assessment on the strength solely of average rentals to the exclusion of other considerations? The Bardoli report says:—“It is clear that Mr. Anderson’s proposals are founded almost entirely on the assumption that the rental statistics, as appearing in the various Appendices II, contain all that is necessary to establish rental values in these two talukas, and that the rental values so ascertained can adequately be expressed by means of indices. It is assumed that a single index for each village, worked out from the rental transactions actually averaged, is so far sufficient for settlement purposes that it is possible, on the strength of these indices alone, to work out a

complete system of grouping and rating in supersession of the proposals of the officer who compiled the data. The fact that these data were not properly compiled makes no difference, since it must be supposed that Mr. Anderson would not have used figures with which he was not satisfied." Such a use of rental figures and 'indices' had not been sanctioned by Government, and yet recently it has amounted "almost to a denial of the original principles of grouping" of lands according to their productivity. The method of framing the 'index' is described thus:—" (1) An average multiple is obtained by dividing the actual rents of the lands examined by their actual assessments. (2) This average multiple is applied to the maximum rate of the village to give the supposed rental value of 16-anna land. (3) The rental value of 16-anna land, so calculated, is divided by two and is then called an 'index' of the full standard maximum rate applicable to the whole village." The report goes on to point out that "obviously when calculated by this method the 'rental value' of a particular field may be something quite different from the 'true rent' actually paid for it, since it will be determined partly by the rents of other fields," and that "the usefulness of the conception of rental value as a common factor (*viz.*, the average multiple) must turn on whether the rents actually averaged do represent net profits and whether they are fairly typical not only of the lands leased but of all lands in the village."

What is true of rental figures is true also of sale statistics and income from toddy trees, which are used by Settlement Officers in the talukas under enquiry. Sweeping generalizations are noticeable here as well, and one instance of the misleading nature of the arguments used and the unjust conclusions drawn by the Settlement Commissioner, will suffice. Speaking of Chorasi, Mr. Anderson says that the land-revenue of the taluka which is roughly 2 lakhs, can be easily paid by the landlords out of their income from toddy trees which, on a modest estimate, may be taken at Rs. 2½ lakhs, "without touching a single grain of corn that grows on any of the fields." Here no account of the cost of rearing and

maintaining the trees has been taken and the comment of the Bardoli report on this is:—"But it is certainly misleading to speak, as Mr. Anderson does, of an income of lakhs of rupees gained 'with practically no effort.' " And further:—"Assuming that they, or a large portion of them, may be able to pay their assessment out of the tapping fees, that is hardly relevant as a standard by which to judge the rates of assessment in general But no conclusions applicable to the general body of agriculturists in the taluka can be drawn from the circumstances prevailing in less than a seventh of the total number of villages." It is pleasing to reflect that the whole of the Bardoli report breathes a spirit of caution and circumspection, of a keen desire to get at facts as they are and of judicious care in scientifically applying them and in using such statistics as can be collected about all relevant conditions; while officials steeped in the knowledge of facts and presumed to be conversant as much with the details of rural life as with the routine of revenue administration, were admittedly careless in obtaining their data, remiss in scrutinising them and hasty in evolving abstract theories and in building conclusions on them in relation to matters vitally affecting the cultivator of the soil.

The Bardoli episode is calculated to yield valuable lessons to officials who have to deal with matters relating to revenue and taxation as also to students of Economics and of public questions generally. It raises a warning finger against the use of inadequate and incomplete information to draw very general conclusions and the application of theories which may be correct in themselves, but have no validity in certain given circumstances. The perfectly legitimate caution that we, in India, ought not to import western economic theories wholesale and must modify and revise them so that they may help in the study of our peculiar problems, is resented in certain quarters as a counsel proceeding from a narrow conception of economic science; and the discussion of such questions as the theoretical nature and the practical effects of land-revenue in this country, *viz.*, State landlordism, is pronounced as a

futile waste of time and energy, if nothing worse. But see what Mr. Anderson, the advocate of the theory of rental value and the revenue index, has at the back of his mind, as a theory of the land-tax. He is a whole-hearted believer in the Ricardian doctrine of rent in its undiluted form and an unconscious supporter of the socialist conception of the exploitation of the masses at the hands of the owners of land and capital. According to him, all rent of land, including what is eked out by a poor owner-cultivator in India, is 'unearned income' which has been created by the community and which must go back to it. If Mr. Anderson had had his way, the dream of single-taxers would be realized in this country in no time. If rents in the Bombay Presidency are taken to be, on an average, thrice the assessment, the whole of the revenue of the Government of Bombay could be made to come out of the land rents without any one becoming the poorer for it, and to the incalculable benefit of the community! If more than 70 per cent of the people of India are supported by land, and large numbers of them are peasant proprietors, who remain to constitute the "community" which is exploited by this large majority of the people, it is difficult to say, but that small matter does not trouble the brain of Mr. Anderson, muddled with his fantastic conceptions about rent. The discussion of these interesting aspects of the problem must, however, be deferred to another occasion.

(To be continued.)

RENT AND LAND-REVENUE IN BENGAL

BY .

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I

One remarkable feature in the rural economy of Bengal at the present day is the large increase in the real economic rent from land which has taken place since the Permanent Settlement. This has been the result of the combination of various factors acting with varying force, at different times. The most obvious reason, of course, is the extension of cultivation, since that time. At the time of the Permanent Settlement, a large proportion, estimated by Lord Cornwallis at one-third, at one-half by others and by some at two-thirds, of the land capable of cultivation was waste.¹ Indeed, the competition at that time was for cultivators, rather than for land, and this was perhaps the chief protection for the tenants against the oppression of the landholders. And it is well-known that the main reason why the land-revenue was settled in perpetuity was to give that amount of security to the landed-interests from future State-interference in the increased proceeds from land, which was supposed to be essential for the extension of cultivation and encouragement of agriculture generally. Though the circumstances under which the Permanent Settlement was concluded, made it the source of many disastrous consequences, yet, this productive principle involved in the limitation of the State demand certainly did bring about the intended results. In a minute of 1813, Mr. Colebrooke writes, "Increase of agriculture has proceeded with rapidity surpassing expectation, and in the greatest part of

¹ Fifth Report of the Committee of House of Commons, p. 16.

the country, has already reached its limit, unless it now receives new impulse from the introduction of new modes of husbandry."

The same author estimates that in 1803, the area cultivated in Bengal was less than $31\frac{1}{2}$ million acres.² The area cultivated in Bengal in 1880, as estimated by the Famine Commission, was $54\frac{1}{2}$ million acres. Since then, owing to continued peace, and increased demands on land, due to increase of population, the area cultivated has steadily grown till nowadays only those lands remain uncultivated which are too unhealthy and unproductive to tempt the settler, or which require considerable initial outlay for the clearance of forest or exclusion of river or sea-water to render it fit for agriculture.

But the increase of rent from land has been effected not only by extension of cultivation but also by more intensive cultivation. This has been the result of two forces which have been working simultaneously since 1793; on the one hand there has been a steady growth in population, and on the other, there has been an alarming increase in the proportion of the people dependent on agriculture for their subsistence.

The information regarding the early population of Bengal is scanty and unreliable. In 1787, Sir William Jones thought that it amounted to 24 millions, including part of United Provinces, then attached to Bengal. Five years later Mr. Colebrooke placed it at thirty millions. In 1835 Mr. Adam assumed it to be 35 millions, but this estimate was thought too high, and was reduced to 31 millions in 1844. In 1870, the population was held to be about 42 millions, or more than a third less than the figures disclosed by the first regular census of the province which was taken in 1872, and which put the figure at 60,165,084.³

² Remarks on the Husbandry and Internal Commerce of Bengal, p. 19.

³ Census of 1901, Vol. VI, Part I, p. 39. Here the province has been taken to consist of the whole of the Lower Provinces, consisting of Bengal Proper, Bihar, Orissa and Chota Nagpur.

The variations in the population of the province since then are shown by the following figures:—

1872—81	1881—91	1891—01	1901—11	1911—21
+6·7	+7·5	+7·7	+8·0	+2·8

Total increase from 1872 to 1921 ... 37·2 per cent.

The result is shown by a systematic increase in the density of population per square mile, the variations in which are given below.⁴

1872	1881	1891	1901	1911	1921
328	366	393	521	551	578

The Census Report of 1921 says, if the sparsely inhabited hill districts of Darjeeling, the Chittagong hill tracts, and the Tipperah State are excluded, the average density in the rest of the province comes up to 640 persons per square mile.

This growth of population, accompanied as it has been by the loss of indigenous industry in Bengal during this period, while no new channel of employment has been found out for its absorption, has led to an increasing dependence on agriculture. Reliable figures for the early years are not available. But the figures, given below, since 1881, taken from the Census Reports, will sufficiently illustrate the tendency.

Proportion of Population supported by Agriculture

1881	1891	1901	1911	1921
53·83	63·19	71·5	75·4	77·3

The extent to which the pressure of population on land has grown may be realised from some figures given in the Census of 1921. It says that the area under cultivation in British territory in Bengal in 1919-20 amounted to 24,496,800 acres, and the number of actual workers in cultivation, ordinary cultivators, farm-servants, field-labourers and growers of special products, was

⁴ The figures are taken from the various Census Reports; they are somewhat vitiated by the administrative changes of 1912. The figures since 1901 are for Bengal as it is, and for the earlier periods are those of the Lower Provinces including States.

11,060,629. This means only 2·215 acres per worker. It should be remembered that cultivation is still carried on on primitive lines in Bengal, and it has not been found possible to increase the productivity of land by the adoption of modern methods of agriculture to any appreciable extent. The natural result has been that the law of diminishing return is operating with full force; the return to the marginal application of labour and capital has steadily diminished, and the real economic rent from land has grown larger and larger.

Out of this surplus produce of land, the share taken by Government, as land-revenue, was fixed in perpetuity in 1793. There has been some increase due to the assessment of *towfeer* land which escaped at the time of the decennial settlement, and of alluvial accretions, by resumption of invalid *lakhiraj* tenures, and of police lands and allowances, by escheats and by resettlement, at enhanced rates, of estates which came into the hands of the Government by these means, and sometimes also by purchase at sales for arrears of public revenue. But altogether, the increase by these means, though considerable in Bihar, has been negligible in Bengal Proper. The land-revenue fixed at the Permanent Settlement for Bengal Proper was Rs. 2,14,91,808. In 1927-28 the land-revenue demand for permanently-settled estates in Bengal was Rs. 2,15·67 lakhs, and the total land-revenue demand for the whole of Bengal including 'miscellaneous land-revenues'⁵ was 2·93 crores. The proportion of the rental taken by the Government as revenue has fallen, not only because it was fixed in perpetuity, while the surplus produce from land has enormously increased, but also because it was fixed in terms of rupees whose purchasing power has very considerably diminished during this period.

⁵ This consists of revenue derived from the sale of Government lands, value of land-revenue abated when lands are acquired by the Government for a local authority or a company, fees and fines under different land-revenue enactments, redemption of land-revenue, fisheries and other receipts such as premiums on settlements or mutation, price of trees or fees from forest produce and royalties on minerals extracted. (Memorandum by Mr. K. C. Dey, Member, Board of Revenue, submitted to the Taxation Enquiry Committee.)

Reliable and accurate figures about the purchasing power of the rupee at the beginning of the British rule are hardly available.

The following show the prices in Calcutta in 1776⁶:—

	Rate per rupee.	
	Md.	Srs.
Rice (fine, 1st sort)	0	16
Rice (coarse; called Kurkashallee)	1	10
Wheat, 1st sort	0	32
Wheat, 2nd sort	0	35
Barley	1	13

Figures of prices of food-crops have been regularly published in the Calcutta Gazette since the Bengal Tenancy Act was passed in 1885. In 1890, common rice sold at Calcutta at Rs. 2-11-5 per md. and wheat at Rs. 2-11-8. In 1926, the price of common rice was Rs. 7-12 per md. and of wheat Rs. 6 per md.

The following figures show the variations in the index numbers of prices of rice, jute and wheat in Calcutta:

(Average price of the decennium 1904—13=100)

Period.	Rice.	Jute.
1864—68 (Quinquennial average) ...	58	41
1874—78	69	49
1884—88	60	48
1894—98	84	69
1904—08	103	99
1914—18	113	118
1920	176	162
1921	159	169
Period.	Wheat.	
1873	100	
1898	103	
1905	108	
1910	114	
1914	136 ⁷	

⁶ J. C. Sinha, *Economic Annals of Bengal*, p. 53 n.

⁷ Prices and Wages in India.

These figures indicate the enormous extent to which prices have risen since the Permanent Settlement, and the consequent loss of real revenue to the Government from this cause. The rest of the surplus produce, after deducting the Government revenue, is distributed among the zamindars, the raiyats, and the numerous body of tenure-holders and under-tenure-holders which has grown up since the Permanent Settlement with intermediary interests in land. Since the land-revenue was settled at about 2.15 crores in 1793, assuming that the share left to the zamindars was one-eleventh of the rental, it could not have been much more than 21 lakhs of rupees. The gross rental, as estimated for purposes of road and public works cesses, is given in the Land Revenue Administration Report for 1927-28 to be 15.19 crores, and the land-revenue demand for the same area 2.93 crores. That is, while the land-revenue has fallen from 90 per cent in 1793 to about 19 per cent in 1925, the landed interests other than raiyats, have benefited during the same period by an increase of more than 12 crores of rupees in their income from land. But this represents only the legal recognised rents paid by the tenants. In order to estimate the full amount of the rental received by the landlords and the tenure-holders of various grades to whom they have transmitted their interests in land, account must be taken of the numerous fees and imposts which in one shape or other have been paid by the tenants during all this period and are still being paid over the greater part of the country. There is reason to believe that the *abwab* was a convenient method of avoiding fluctuations in the ostensible rate of rent, at a time when custom counted for more than contract, and the relations of landlords and tenants had not been brought down to modern definiteness. But they lent themselves to great abuses and grew up into a very oppressive burden on the raiyats. When the Permanent Settlement was concluded, all *abwabs* were consolidated with the rent and the imposition of fresh *abwabs* was prohibited. This prohibition remains a part of the substantive law of landlord and tenant in Bengal to this day. But it has been, all through, honoured more in the breach than other-

wise. When Lord Curzon's Government reviewed the land-revenue systems of India in 1902, the resolution embodying the views of the Government said that there were grounds for suspecting that the landlords often shifted on to the tenants that share of the burden of local cesses which is imposed on themselves by law. The resolution goes on to say, "There are also, in some zamindari tracts, a number of practically unauthorised village cesses, . . . which are well-known to all those who are familiar with the economy of rural life in India. In many cases, these unrecognised and often undesirable imposts exceed the total of the cesses levied under the British administration." The extent to which this canker has grown in the agrarian economy of Bengal, as revealed by the enquiries instituted during the settlement operations of the various districts, is a scandal and a menace to the prosperity of rural areas. In his report on the settlement operations of Bakarganj district, Mr. Jack says that a conservative estimate would place the total amount collected as *abwab* in that district, at not less than twenty lakhs of rupees, or more than the entire Government land-revenue, and one quarter of the entire rental of the district. The report goes on: "In addition to these levies, there are levies for special purposes . . . although the amount collected appears to be always far in excess of the amount expended and occasionally the service or institution for which the amount is collected is not maintained at all. Of the same nature is the excess realisation of the public works and road cess which is very rarely levied by the landlords at the authorised rate."⁸ Mr. Jack maintains that for any attempt to withstand the imposition of the *abwab*, the help afforded by law is illusory; because a prosecution in the criminal courts for extortion is almost impossible to bring home, while the compensation afforded by Section 75 of the Bengal Tenancy Act would ordinarily not cover the cost of a civil suit. He goes on to say that above all, the refusal of rent-receipts places the tenant in a very disadvantageous position in any litigation

with his landlord, as it lays him always open to counter-attack by means of a suit for arrears of rent. "The more general method by which the payment of these charges (*abwabs*) is enforced is by the threat of a suit for arrears of rent, the success of which is prepared by the universal refusal to grant rent-receipts. In no private estate in Bakarganj are receipts granted for a part-payment on account of rent, and in few for a full payment; in the south of the district, many estates, both large and small, openly refuse to grant receipts for rent at all When a payment is tendered, the landlord credits the sum first against *abwab*, and the balance only against rent."⁹ The same author writing about the state of affairs in Faridpur says, "The rate at which the road cess is levied shows remarkable differences in different parts of the district. Often in the north and east, it was found to be collected at the legal rate of half an anna in the rupee of rent, but as often at double the legal rate. In Palong, it was never less than one anna and often two or three. In some estates, it rose much higher, and the Narail Babus in the west of the district appear to have levied it at the rate of 6 annas in the rupee."¹⁰

Describing the conditions in Dacca district, Mr. Ascoli writes in 1917, that the *abwabs* are divisible into two classes—the routine and ceremonial. The Permanent Settlement sanctioned the inclusion of the *abwabs* in the rent, while forbidding additional *abwabs*. "Rents were increased, and *abwabs* continued; and to the present day, the landlords of Dacca have developed this precedent and augmented their rents by the inclusion of *abwabs*; not unnaturally, a fresh *abwab* is immediately imposed. When settlement operations commenced in that area (the estate of Bhawal), *abwabs* varying from 2½ annas to 5 annas in the rupee, were discovered throughout the estate. . . . The blight, however, was not peculiar to Bhawal. Excepting small areas in the north-east of the district, where the *raivat* has temporarily gained the upper hand,

⁹ P. 88.

¹⁰ Faridpur Settlement Report, p. 39.

and even rent is unrealisable, excepting areas, where the number of petty co-sharers is so abnormal as to jeopardise any regular collection of rent, or the power of the petty absentee tenure-holders is too slight to admit of control, *abwabs* are realised throughout the district, more specially by the powerful landlords. Often a consolidated *abwab* of 2 annas or 2 annas 6 pies in the rupee is levied; occasionally the *abwab* is levied on area." Speaking of ceremonial *abwabs*, he says, "Illegal evictions, false criminal prosecutions, fortuitous fires and the open destruction of homesteads by means of elephants, are the ordinary methods of procedure in such cases. . . . Where the ceremonial *abwab* exists, it is employed as an engine, not merely of financial extortion, but of physical oppression." Mr. Ascoli says that it is not possible to estimate with any degree of precision the amount of the *abwab*, but puts it conservatively at 1½ annas in the rupee on the cash rent-roll, and says it must be well within the mark. On the basis of this estimate, the proceeds of the *abwabs* in Dacca would amount to Rs. 3,50,000.¹¹ In his report on Jessore Settlement (1920—24), Mr. Monnin, now Director of Land Records, Bengal, gives instances where road cesses are realised at the rate of 1 anna or 1½ annas per rupee of rent. He also gives an account of the various *abwabs* realised in the different estates, some of which are appropriated by the officers of the zamindars. He says, "The tenants seem to have become used to the payment of *abwabs* and pay without demur, but the real sting lies in the fact that these *abwabs* are realised with an iron hand, and are considered to be the first charge on the tenant, even in preference to rent."

In his report on Birbhum district Mr. Robertson complains that in numerous cases, Section 56 of the Bengal Tenancy Act as regards the granting of rent-receipts is not carried out; that when arrear rent is due, the year for which it is due is not specified; that in many cases the *gomasta* does not grant a counterfoil receipt in the prescribed form, but only gives the *raiya*t a *roka* or

¹¹ Dacca Settlement Report, p. 44.

slip of paper, stating that he has received a certain sum, which he holds in deposit on the raiyat's account; it is not even stated that the money has been paid on account of rent. The report goes on, "Another evil and oppressive practice is to withhold or refuse receipts to the raiyat, unless he pays more than the rent shown in the receipt as payable by him. I have innumerable complaints made to me about the matter, and I have no doubt that in most cases the complaints were true. In some cases the raiyat does not receive even a *roka* for the rent paid by him."¹²

In his report on Chittagong Mr. Allen enumerates a number of *abwabs* found in that district. Instances can be multiplied to show that the disease is rampant throughout Bengal. These are only typical of the state of affairs as revealed by the Settlement Reports. It was hoped that the publication of these Reports would check the evil to a certain extent. Unfortunately these expectations do not seem to have been realised. As Mr. Monnin pointed out in the Jessore Report (page 124), the only provision in the Tenancy Act is a power of the tenant to sue for recovery of the *abwab* realised. The tenant pays the *abwab* because he is afraid to oppose the landlord, and it is improbable, in the nature of the case, that he should bring a suit against him or complain in court. Hence this provision of law has remained a dead letter. The Land Revenue Administration Report for 1925-26 says, "The practice of levying illegal cesses or *abwabs* over and above the legal rents by the agents of private proprietors is still prevalent throughout the province. . . . But although the tenants now fully understand that these exactions are illegal, they usually pay such demands, without protest, in order to avoid the displeasure of the zamindar and his *amlas*. There is provision indeed, in Section 75 of the Bengal Tenancy Act, against such exactions, but for the reasons stated above it has practically remained a dead letter."¹³ The Administration Report for 1926-27 reiterates the same views

¹² P. 20.

¹³ P. 17.

In his memorandum submitted to the Taxation Enquiry Committee, Mr. Jameson, Director of Land Records, gave his opinion that the illegal exactions made by the zamindar himself and his underlings are in some at least as important an item as the rent. The following, taken from his evidence on the point before the Taxation Enquiry Committee, is illuminating:

SIR PERCY THOMPSON: Q.—Is there any attempt made to stop these illegal exactions?

A.—There are provisions in the Tenancy Act by which the person affected may complain to the magistrate; but these provisions are in practice a dead letter.

Q.—Then practically, your tenancy law is a dead letter?

A.—Yes, in respect of these illegal exactions. Of course the illegal exactions are quite moderate in many parts and they are more or less stable. They will be annas 2 in a rupee of rent. But the tenant knows exactly how much he has got to pay.¹⁴

The other great and important source of income to the landlords is the fee levied on transfers of raiyati holdings. The Bengal Tenancy Act made the transferability of occupancy holdings dependent on the consent of the landlord. Since then this consent has developed a money-value which varied in different localities, but has been estimated to be, on the whole, about 20 to 25 per cent of the capitalised value of the holdings. The practice became so universal, that the Government followed the example and introduced the system in the estates which are under its direct management. The process was completed when the Bengal Tenancy (Amendment) Act of 1928 legalised the practice, and fixed the landlord's fee at 20 per cent of the value of the holding transferred or five times the rent thereof, whichever is greater. It is difficult to estimate the income of the landlords from this source, because the figures relating to transfers of occupancy-holdings are not separately recorded. The Report of the Registration Department for 1927 shows that the value of immovable property

¹⁴ Report of T. E. Committee, Vol. 5, p. 328.

transferred by registered instruments during that year, by gift, mortgage, sale or exchange, came up to 32·47 crores of rupees. It can be presumed that a substantial proportion of these are occupancy-holdings; and there can be no doubt that the legalisation of transferability must increase the number of such transfers. Assuming the value of occupancy-holdings or parts or shares thereof, which will be annually transferred in future, to be 16 crores of rupees or half that of the total amount transferred at present, the landlords would get more than 3 crores from this source, which more than covers the land-revenue which they pay to the Government.

It has been said that rent in Bengal as paid by the tenants for the use or occupation of land is far below the true economic rent; that it is controlled by custom on the one hand and the clauses of the Tenancy laws on the other, and has no relation to the surplus produce of land after paying for the costs of cultivation, with reasonable profits. This is certainly true so far as the regular authorised rental is concerned. But when we consider the various ways and pretences by which the raiyat is deprived of that share of the surplus produce of land, which legally and rightfully belongs to him, we can doubt very much whether the whole of the economic rent of land in Bengal which has enormously increased since 1793 does not accrue to the land-holding interests of various grades superimposed on the tenants.

II

We have seen that the landlords in Bengal pay as land-revenue about 19 per cent of the legal authorised rental which they receive from the tenants, without taking into account the fees on transfers and other extra-legal and illegal exactions on various pretences. Since agricultural incomes are exempted from income-tax, this represents, leaving out of account the local cesses, the

total share of the burden of provincial revenues on landed-interests as such. We propose to examine whether this class is contributing its fair share to the expenses of government, according to principles conducive to the best interests of the community as a whole. The question is of vital and increasing importance, owing to the growing demands on the State, caused by a radical change in recent years in our conception of the duties of the State. It is looked upon nowadays as an instrument of social reform and economic regeneration, and no Government can succeed in Bengal, which does not make a substantial effort in fighting poverty, ignorance and disease. It has been truly said that financial stringency had as much share in killing Diarchy in Bengal as the Swarajists. In view of the fact that in future, the expenditure on the nation-building departments is sure to grow at an ever-increasing rate, no finance minister can ignore to seriously examine whether the largest industry in the country is discharging its fair share of the tax burden.

It would be instructive, in this connection, to compare the land-revenue in Bengal with those of other provinces. It was usual in former years to make this comparison according to the incidence of land-revenue per head of population, or per square mile or by the percentage of land-revenue to the gross value of the crop in the various provinces as was done by the Famine Commission. But these comparisons are vitiated by vital differences in the conditions of the various provinces. The proportion of the agricultural population to the total population and of cultivated area to the total area differ from province to province; and there are variations in the fertility of the soil, the size of the holdings and the expenses of cultivation, which varies not only according to the soil but also according to the crop raised. A comparison can only reasonably be made of the percentage borne by land-revenue to the real economic rent which is the true taxable surplus from land. But the competitive rent does not exist either in Bengal or in other provinces, taken broadly. Hence a comparison can only be made on the basis of existing rentals, which

in many cases are controlled by custom and tenancy laws and in some are fixed by revenue officers. Though allowance must be made for this factor, yet the authoritative enquiries which have been made on this basis in the past would give a sufficient indication of the pitch of land-revenue in the various provinces.

An exhaustive review of the land-revenue systems prevailing in India was made by the Government of India in 1902, owing to influential representations that the series of calamities which in preceding years assailed the agricultural population was due to poverty caused by over-assessment. The famous resolution embodying the land-revenue policy of the Government described the incidence of land-revenue in temporarily-settled zamindari tracts as follows:—The Government share was brought down in the North-Western Provinces to an average of less than fifty per cent of the income of the proprietor from land; in the re-settlement of Oudh, then on the point of completion, the average fell below 47 per cent; in the Central Provinces, there had been a progressive reduction in the assessment, though it had not reached the limit of the North-Western Provinces; in Orissa, at the re-settlement just concluded, it had been brought down to 54 per cent; in the Punjab, the general average did not exceed 45 per cent of the net income. The resolution concludes: "From the summary it results that while the standard of 50 per cent has nowhere been laid down as a fixed and immutable prescription, there has been, and there is a growing tendency, throughout temporarily-settled zamindari districts, to approximate to it. And in special circumstances, a very much lower share is taken." (Para. 13.)

Comparative figures for more recent times are available from the replies in 1925 of the local Governments to the letter of the Taxation Enquiry Committee on this point. The Burma Government gives the average rent and revenue per acre for 21 districts, which comes to Rs. 3.20 for revenue and 10.48 for rent or about 30 per cent. The Punjab Government gave the proportion of land-revenue to net assets for 11 districts as 25 per cent at the time of imposition; but as 6 of these belonged to the same division,

5 enjoyed irrigation from perennial canals, and four from inundation canals, it was thought that they were not typical of the province, and Government therefore made enquiries, and gave the results of 15 other districts where the average proportion came up to 29.6 per cent. The United Provinces Government gave the proportion of revenue to rent as 27 per cent; and the Madras Government gave the multiple of rental to assessment for 22 districts as 5.6 times; *i.e.*, the percentage of assessment comes up to 18 per cent. Though the figures are not exhaustive, and are, by their nature, rather inconclusive, owing to the absence of any knowledge as to the proportion which the actual rentals bear to the real economic rent in the various provinces, yet they afford a basis on which it may perhaps be safely estimated that, on an average, the proportion of revenue to net assets, estimated on the basis of actual rentals, comes up to about 25 per cent for India as a whole, and only 19 per cent for Bengal.

The wisdom or otherwise of making the Permanent Settlement with the zamindars has perhaps ceased to be of any but academic interest; but the fairness and incidence of the land-tax is of vital interest, and bids fair to command more attention in the future. It may be pointed out that land-revenue violates some important and accepted canons of taxation. By its nature it is absolutely inelastic. But what is more important, by a curious freak of fortune, the proportion which the income from land contributes to the public revenues decreases with every increase in that income. We have seen how the proportion has come down from 90 to only 19 per cent since 1793. It can hardly be said that the tendency has spent its force; the factors at work may bring down the proportion to a very much smaller figure. The increasing attention at present given to the possibilities of scientific agriculture may bring up the incomes from land to much higher figures. And then, every increase in price tends to increase rents by a double process, by shifting the margin of cultivation and thus increasing the producers' surplus, and by increasing its money value.

Land-revenue suffers from another defect which is inherent

in the nature of the tax. The practical interpretation of the canon of ability is shown by the universal acceptance of the idea of progression in taxation. But land-revenue is essentially a tax on things and not on persons, a 'real' tax, dealing with the object, or the value embodied in the object, and takes no account of the position of the proprietor; hence the doctrine of progression cannot be applied to it. The European countries have sought to counteract this virtual inequality of taxation by a graduated system of income-tax and death-duties; but landed-incomes in Bengal are notoriously exempt from the operation of the one and practically free from the other. As a matter of fact, if we consider other parts of India, which are not under zamindari settlement, it tends in the opposite direction and presses very hard on the owners of small holdings, which are very often uneconomic, and yet not exempted from the land-tax.

The land-revenue in Bengal is paid only by those who are recorded as proprietors of estates. Thanks to the Patni system and its elaborate extension through sub-infeudation, there is a vast body of subordinate tenure-holders owning various grades of intermediate interests in land. The number of tenures assessed to local cesses in 1927 amounted to 47,83,565. A great proportion of them are owners of interests which are substantial and valuable. But this great body of landowners, as such, are altogether exempt from any contribution to the provincial revenues.

Another result of the Permanent Settlement has been that the incidence of land-tax has tended to become more and more unequal. While the amount of the tax was fixed, the elements which affect the true rent are perpetually varying. In 1793, most districts had some estates containing a great proportion of untilled lands, while others were pretty well developed. The increment in the economic rent in the former may have been many times that of the latter. Land which was fertile when cultivation was extensive, may be relatively poorer now that cultivation is intensive. Moreover, the development of the country has affected different estates in different degrees, and thus added in unequal

proportions to the important part of their value which is due to public rather than private causes.

Thus, whether we consider the relative tax-burden of persons who pay land-revenue in Bengal, or the landed interests as compared to other classes in the province, or the landed-classes in other provinces, we find that land-revenue in Bengal can have little pretensions to distributive justice.

Yet, the State has special claims on the income from land than on other forms of wealth. Rent is essentially a residual income emerging after the satisfaction of all claims of human energy and waitings. The part of the national income, which goes to the earnings of land, is a surplus in a sense in which the earnings of other agents of production are not a surplus. Taxation of other sources of income is bound to react on their supply. But, theoretically, taxation of the entire economic rent would not impair the vigour of industry or the accumulation of capital. But this would naturally offend our sense of equity, since public property has been recognised and much of the land has changed hands, in which case, rent simply represents the normal anticipated profits from their investments. On the other hand, it should be remembered that much the greater part of rent is unearned income, which owes its origin to causes which are public rather than private in their character. Any new burden on land would not affect its future owners since, in every case of purchase, it will be amortised. It will certainly affect the present owners; but then it will only take away the differential advantage which land enjoys at present over other forms of capital. Those who speculated in land, must take the risk of prospective burdens on it, and cannot expect the present system of taxation to continue always. Of course, extra-taxation will depress the value of land for the time being, but that result is inevitable in all forms of taxation. If the several forms of incomes are taxed in due proportion, the man investing capital in land will get the same proportional return as he might get by investing in any other direction.

A more substantial argument against land-tax is that the

income from land is a composite income including other elements than pure rent; and the tax may fall on fixed capital if the land owes its value to capital sunk in it. This will mean a tax on interest on capital applied on land and if unaccompanied by taxation of other forms of capital, would discourage the investment of capital on land on the one hand, and on the other discourage loans to owners of land and raise the interest on mortgages. But as it is, unfortunately there is very little capital applied to land in Bengal for permanent improvements. It is important to guard against the danger; but it can be avoided by making due allowances for the costs of production including interests on capital and normal profits. Every productive employment of capital in land, which increases its yield, ought to be encouraged; but investment of capital in land in the sense of simply buying it at the capitalised value of its present rental has no necessary connections with improvements in land; what is interest on capital to the individual, is, from the national point of view, only rent from land and is a proper source of taxation. Any such tax will not affect the margin of cultivation, but may enable relief to be given to other methods of taxation which bear on industry and accumulation of capital.

These considerations, which show that land should be treated on a separate footing for purposes of taxation from other sources of income, are borne out by the universal practice in the modern world, where it bears a comparatively heavier burden, because apart from a proportional land tax and local rates, income from land is treated on exactly the same footing as other incomes for purposes of income-tax and death duty.¹⁵

Death duties are nowadays regarded as a very fair, equitable and important source of taxation in most countries. The State is supposed to have a moral claim to a part of wealth which could only be amassed, retained and enjoyed under the security which it affords. It is levied at a time when the owner has no necessity

¹⁵ For a brief survey of land-tax in different countries, see Report of Taxation Enquiry Committee, Chapter IV, Part 1.

for it; and those who succeed have at best a moral claim; and in many cases it is mere windfall. Moreover, it is regarded as an instrument of social justice, which brings to the community a part of the unearned income from an idle class created by huge inheritances. But for our purpose, the most important practical consideration is that it is a direct tax, which, with a carefully planned system of progression, may be made an instrument of more equal distributive justice in taxation; and which promises to open up a substantial source of revenue for much-needed nation-building work.

The situation in Bengal as regards death duties is very anomalous. At present duties have got to be paid for probate, letters of administration and succession certificates. But these duties are limited in their operation and inequitable in their incidence, which varies with race, religion and locality. By the Administrator-General's Act, duty has got to be paid in respect of any property over Rs. 1,000 in value left by any European, Eurasian, Armenian, Jew or person of foreign domicile. The Hindus pay the duty in cases of testamentary succession where a claim has got to be established in court. The Muhammadans and the Hindus who do not come under the Hindu Wills Act only pay when they sue for the recovery of a debt, either for probate, letters of administration or a succession certificate. The production of a succession certificate, probate or letter of administration can also be insisted upon under special laws, such as the Post Office Cash Certificates Act 1917, Provident Funds Act 1897, etc.

The necessity of putting the whole system on a more equitable and less complicated basis and of extending it to all cases of transfer of property by death has been long recognised. The whole question was examined in Bengal in 1924. The imposition of death duties on an all-India basis was recommended by the Taxation Enquiry Committee. There are practical difficulties especially because of joint-families, and the different systems of inheritance. But these difficulties would arise only in exceptional cases and may be met by legislation if necessary and they should not be

allowed to stand in the way of a very necessary reform in the tax-system.

The amount which may be raised from this source may be realised from the duties paid under the existing laws, which are so limited in their operation. In the year 1920-21 the total value of property on which probate duty (under Art. 11 of the Court Fees Act) was paid in Bengal amounted to Rs. 4,10,75,000, out of which property in land other than house-property amounted in value to Rs. 24,01,000 and paid the duty in 38 cases.¹⁶ In 1923-24, the total receipts from these sources in Bengal amounted to Rs. 15,32,207.¹⁷ It is highly desirable that in Bengal, at any rate, a uniform and comprehensive system of estate and succession duties, with a proper scale of progression and a proper exemption limit, be instituted and the duties realised either by the ordinary revenue process or by making probates or letters of administration compulsory.

The other reform in land-taxation suggested is to take away the exemption which income from land now enjoys from liability to income-tax. The history of the question is very involved and has given rise to bitter controversies in the past. The Bengal landlords base their demand for exemption on the Permanent Settlement which declared that the public demand should not be augmented "in consequence of the improvement of their respective estates." Without going into the legal aspects of the question it may be said that the plea has not been accepted by the Government, which contends that their liability to the general burdens of State in common with other classes of the community has no necessary reference to the improvement of their estates, that it is an entirely different kind of liability based on a totally different principle. As a matter of fact agricultural incomes were included in the income-tax in 1860 and in 1869, and the license-tax on the trader in 1878 which was levied for forming a famine insurance

¹⁶ Note submitted by Legal Adviser to Taxation Enquiry Committee.

¹⁷ Annexure B of Note by Legal Adviser to T.E. Committee.

fund was combined with a cess on land. This land-cess, which was a corresponding burden to the license-tax or its successor the income-tax has been abolished for provincial or imperial purposes, but nothing has taken its place. Consequently one can only agree with the Taxation Enquiry Committee that "there is nothing in the history of the case to justify the continued exemption of this class of income from the income-tax."¹⁸

It has been pleaded on behalf of the Bengal landlords that most of them are poor and in indebtedness;¹⁹ a condition of things for which they have to thank their own extravagance and the habit of sub-letting whenever a tolerable income may be secured without the responsibilities of management. But the argument is hardly relevant in view of the fact that income-tax is only imposed on incomes in excess of Rs. 2,000.

A more important practical consideration is whether the yield would justify the measure. In his memorandum before the Taxation Enquiry Committee, Sir P. C. Mitter, Secretary to the British Indian Association, stated that the total number of voters, in the landholders' electorate in Bengal for returning a member to the Legislative Assembly, is only 650. The revenue, rent and cess qualifications are such that the minimum income of the landholders eligible as voters is only about Rs. 12,000 a year. But this hardly gives a fair indication of the possible yield from this source, if the exemption limit be retained at Rs. 2,000. For one thing, the number of people in the lower ranges of incomes are always substantially greater than in the higher ranges. And then, only those paying land-revenue or cesses direct to the Government are eligible as voters in West Bengal, though in East Bengal permanent tenure-holders paying a similar amount of rent or cess are also eligible. There may be many tenure-holders, who are not voters, but yet whose incomes may be very high; for there is no reason why the income from a lower interest in land should

¹⁸ T.E. Committee's Report, p. 212.

¹⁹ Evidence of Sir P. C. Mitter before the Taxation Enquiry Committee.

necessarily be lower than that of the higher interests. It should also be remembered that many people who are now exempted from the income-tax, but who combine other sources of income with that of land, will come within its orbit when the latter is taken into consideration for purposes of assessment. Moreover, though the minimum income of the voters is Rs. 12,000 a year, the maximum may be many lakhs, and with a proper system of graduation, it is likely that a considerable revenue may be realised from this source.

We have seen that equity as well as administrative necessities demand that landed-incomes in Bengal should be made to bear a greater proportion of the tax-burden than they do at present. In the case of other agents of production, the inexorable process of competition eliminates antiquated and inefficient methods of production. Owing to the peculiar nature of land, there is a large number of landowners who do nothing to bring its use in line with modern methods, but who live as parasites on its rental, which again is in a great measure due to public causes. It is only proper that this class should be made to pay their share of the general burden. Both of the two measures suggested (they have been considered many times) may have to be dealt with on an all-India basis. But the considerations justifying their imposition, apply with special force in the case of the Bengal landlords. They have been resisted so long owing to the efforts and influence of these powerful interests. But it is time it is realised that the existing inequalities cannot go on for ever, simply because the landed classes have come to regard themselves as peculiarly immune from further taxation, and that the tax-system should be based on a rational basis, which will be able to satisfy the urgent claims of the new generation, and those of the future.

THE ECONOMIC SURVEY OF AN INDIAN VILLAGE

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The village under investigation is known by two names—Dashrathpur and Paliwarpur. The two names have a very interesting origin. Some four hundred years ago, when the whole area of the village and its vicinity was covered by bushy forests, one Dashrath—a Banya by caste—selected a small open place as his abode. In due course, the others followed suit, and the abode of a solitary person developed into a village of an appreciable size. The forest, of course, was cut down, and the land used for purposes of cultivation. The Banya, by virtue of his thrifty and frugal habits, mingled with a high degree of business cleverness, grew rich. The village, by common consent, was christened after him, as he was the first to inhabit the solitary spot, and, secondly, because he had gained sufficient prominence by this time on account of his riches. For two hundred years the village retained a single name, until the advent of Paliwar Rajputs in the village. They too became prominent and wealthy, and the village, according to the famous Persian couplet—*هر که آمد عمارت ساخت*—was renamed Paliwarpur. It is strange that the two names have somehow preserved their existence. The former embellishes the official records, while the latter is current among the inhabitants of this village and its neighbourhood. It is curious enough to note that some people in the village are not even aware of the first name. Each occupies its own sphere, and there is no apparent or real encroachment in the domain of one another.

The village is situated in the Bhadohi Pargana of the Benares State in the Gyanpore Tehsil. The nearest police-station is Gyanpore which is at a distance of about three miles; but the village is within the circle of Suriyawan Police-station which is at a distance of about six miles from the village, and is also a railway station. The nearest station, of course, is Mondh on the E.I.R. lines between Allahabad and Benares. The village is very unfortunate in not having a post office and a school of its own, both being situated at a distance of over a mile. The school is maintained by the District Board, and for inspection purposes it is attached to the Department of Education, United Provinces. The centre of activities and attraction is Gyanpore, which has Judicial as well as Criminal Courts, and also a hospital and a jail.

PHYSICAL DESCRIPTION OF THE VILLAGE

Dashrathpur is a village of an average size. Its area is about four hundred and nine bighas, out of which about sixty bighas are occupied by the *abadi* or village site. About 225 bighas are under actual cultivation and the rest is occupied by groves, tanks and scattered group of trees. There is one fruit-bearing and one non-fruit-bearing garden attached to two houses in the village. There are 76 guava trees in the fruit-bearing garden, yielding an annual income of about Rs. 60. The entire produce of the garden is sold to a fruit-vendor. It does not bring a higher sum in spite of the fact that guavas are much in demand in the vicinity. The reason is that the fruit-selling is carried on generally by a class of people known as Khatiks. There is a scarcity of this class in the neighbourhood, and the one family that exists there, has a monopoly on the purchasers' side. He has an advantage in that he is a single buyer, there being several sellers, and consequently he gets the better of the bargain. This situation is due chiefly to the caste system, and the immobile character of labour. People of no other caste in the village would take to this occupation, so the supply of this kind of labour is limited by caste restrictions. Khatiks from any other village do not care to leave their hearth and home,

and consequently there is no influx of people belonging to this class into the village. Competition plays no part in any department of the village-life. The absence of competition leaves no incentive for the cultivator to engage himself in fruit culture. Already there are five groves in the village—three containing mango trees, and two mahua trees. These groves bring no income. There is a sort of prejudice prevailing in the village against selling the grove fruits. This custom, of course, is not so formidable. Had there been any road, *kutchra* or *pucca*, connecting the village with the railway station, people would probably be tempted to sell the fruits of their groves. Absence of transport facilities discourages the export of the village product.

SOIL

The soil in general is fertile. It is of several kinds, but generally it is a sandy loam. The soil just surrounding the village is most fertile. The reason is not far to seek. First of all the land near the village gets the greatest care. The villagers keep their cattle on these fields when not sown, and they consequently are enriched by the dung and the urine of the animals. Other forms of village refuse and nightsoil also are thrown and deposited in these fields,—there being, of course, no regular latrines in the village. Because of these, the productivity of the land is considerably raised, and there is generally a scramble for these fields among the tenants-at-will. They, therefore, command higher rents. Besides, people prefer to cultivate sugarcane and vegetable in these fields, as these crops require more care and protection both from men and animals. All these causes tend to make the demand greater, leading to a rise in rents.

VILLAGE OFFICIALS

The only active village officials are the Patwari, the Chowkidar and the Karinda or the rent-collector. The Patwari is the village accountant, and keeps all the papers concerning the village. His jurisdiction extends over three other villages, besides the one

under investigation. Of the many registers and papers with the maintenance of which a Patwari is charged, only the following may be noted here:—

1. The map of the village.
2. The Khasra or the field-book.
3. The Khatauni or register of cultivators.
4. Siaha or cash-rents.
5. The grain-rent ledger.
6. The Jamabandi, or the annual rent roll.
7. The Khewat or proprietary register.

The second important official is the Chowkidar, who keeps a watch over the village, and notes the movements of the criminals and the suspects, and keeps the police informed of all the different activities in the village. He also reports the number of deaths and births. But it is to be regretted that these two officials being underpaid do not discharge their respective duties efficiently and honestly.

The third village official of any note is the rent-collector. He has no executive duties to perform. The village being situated in Benares State, His Highness the Maharaja is the sole landlord, and the rent-collector is his paid representative. He is empowered to collect rents up to Rs. 20,000. The whole rent of the village amounts to Rs. 800 only. There are no *lambardars* and no *panchayat* in the village. There is, however, a Mukhya, but he is only a figurehead, and comes into prominence only when some crime has been committed in the village, and the police-officer has come for investigation.

POPULATION

The last census was taken in the year 1921, and according to it the population is as follows:—

a. Males	...	...	...	215
b. Females	...	...	...	193
Total				408

CASTES

a. Rajputs	...	...	...	73 ●
b. Mohammadan Weavers	...	...	...	179
c. Washermen	...	...	...	13
d. Kewats	...	...	...	49
e. Kahars	...	...	...	17
f. Shepherds	...	...	...	15
g. Khatiks	...	...	...	8
h. Ahirs	...	...	...	19
i. Chamars	...	...	...	53
j. Kumhars	...	...	...	6
k. Goldsmiths	...	...	...	4
l. Carpenters and blacksmiths	...	...	...	8
m. Barais (betel-raisers)	...	...	...	4
n. Banyas	...	...	...	7
o. Barbers	...	...	...	7

Except the Mohammadans who are 179 in number the rest of the population is Hindu. A glance at the population statistics will show that the village is self-sufficient so far as the agricultural needs are concerned. There are no Brahmans. They are imported from the neighbouring villages whenever a religious ceremony or a puja has to be performed.

There has occurred no serious epidemic these fifteen or twenty years, except this year, when six men and seven women died, due to plague. People have not yet learnt the value of inoculation, and take to evacuation only when it is too late. Mortality among children is the highest. Out of every ten children only about six or seven survive the age of two. Then comparatively the number of deaths among women is greater than that among men. The main disease that is taking a heavy toll of women not only in this village, but also in other places in India, is tuberculosis. The disease seems to be fast spreading, and taking a deep root in the

village. A large number of deaths occur in the village because of it. The disease finds a most congenial soil in India, because of the presence of the *purdah* system, child-marriage and under-feeding. Besides this, the housing conditions are most unsatisfactory. The mud hovels in which the villagers live are ill-ventilated, dark and dingy. The situation is not altogether hopeless. The age of marriage is gradually rising in all castes, and it is hoped that with the proposed legislation and the spread of education the disease will eventually disappear root and branch. Only twelve years back the average age for marriage amongst the Brahmins was about eight, among Rajputs about fourteen. But now while it has risen a little among the Brahmins, it has certainly gone to about 17 or 18 among the Rajputs. Among the lower classes it still remains at six or seven. Among them the *gauna* ceremony or the consummation of marriage takes place at the age of seventeen or eighteen, and there is no bar against widow-remarriage. So child-marriage in this caste is not productive of very harmful results, as it is in the case of other castes where consummation takes place earlier.

AGRICULTURE THE CHIEF INDUSTRY

India is pre-eminently an agricultural country. More than seventy-two per cent of her population are directly or indirectly dependent upon agriculture for their livelihood. But, in this village, though agriculture is the mainstay of the people, it is well-supplemented by weaving and carpet-making. The industries have come into prominence, because of the establishment of exporting firms at Mirzapore. The Rajputs have more land than they can actually cultivate; so they sublet it to others and receive rents in cash. The Ahirs have cows and buffaloes, and make some profit from the sale of milk and ghee. But none the less, their principal occupation is agriculture. The chief occupation of the Mohamādans is cloth and carpet-weaving. Mirzapore carpets are well-known and this village, before the creation of Benares State in

1911, was a part of the Mirzapore district, and is situated almost in the centre of the carpet industry. During the Great War the price of woollen carpets rose very high, and brought a net profit of nearly fifty per cent to the weavers. Conditions at the present time are, however, not very encouraging, due to the prevailing depression in the industry. But it, nevertheless, brings a sufficient return to labour. The English firms at Mirzapore have done a good deal to improve the quality of work by introducing up-to-date and attractive designs, and distributing them to weavers.

The Kewats combine the work of digging earth and building houses with that of agriculture. The other castes, except the Chamars, most of whom are wage-earners and labourers, follow their own hereditary occupation, in addition to agriculture. The Chamars are the only class of people who have no land of their own and work as labourers in the fields of the Rajputs. The rest have partly their own lands, and partly are the sub-tenants of Rajputs at an annual rental. Some of them and most of the Mohammadans cultivate land which they get from the Rajputs on the *adhiya* or meteyage system. When they choose to engage themselves in agriculture they are very careful cultivators. Generally the youngest ones take to weaving, the older ones are engaged in agriculture. The Kumhars or potters, the goldsmiths and the washermen earn a substantial sum from their respective callings. But they too have land and do some work in connection with cultivation. The Banyas are the only non-agricultural people. They keep shops, and are responsible for the supply of kerosene oil, spices, salt, tobacco and such other things which villagers generally require. This village is very peculiar. The agriculturists seldom have a holiday. During the slack seasons they are busy in the subsidiary industry of weaving, or digging of land, or building or repairing of houses. They have other occupations besides agriculture to keep them engaged throughout the year. When the work is lighter they go out on pilgrimage or a-visiting in the neighbouring villages or towns where their near kinsmen reside, or they sit and chat with friends. Smoking and gossiping is the

chief pastime. It is sometimes contended that the villagers have a right to enjoy after a day's hard toil and profuse sweating. No body denies to them the right of enjoyment, but what has been noticed is that in villages where agriculture is the only calling, there are times when the villagers have very little or nothing at all to do. During such months they should do something else. Considering their income *per capita* and the uneconomic state of their holdings, it is necessary for the farmers to pursue some other occupation in order to supplement their incomes.

During the years of plenty, when there are some prospects of saving, the farmers undertake the celebrations of festivals and marriages. Litigation with some farmers is a pet pursuit, and the years of plenty and prosperity give to men of such a nature an additional stimulus. But when the inevitable lean years roll around nothing but gloominess and utter helplessness broods over the village. Bright and shining faces turn sad and sullen. Destitution and despair prevail. The only solace is the Fate, the decree of God which is irrevocable. The enjoyments of happy times contract, and they are generally driven to the necessity of borrowing.

Only 17 persons live outside the village, though temporarily; nine of them are Chamars by caste and are serving as grooms in Bombay and Karachi. There are four students reading in a High School at Benares, and three in the Tehsil Vernacular School. There is one pleader practising at Benares. 13 boys are studying in the Upper Primary School in the neighbouring village.

BEGGARS AND FAKIRS

It is most fortunate for the village that there are no beggars and fakirs. But it should not be understood that the villagers are not tormented by them. There is a large army of nomadic and itinerant beggars, who go from village to village. There is of course a good deal of difference between the beggars of the towns

and those of the villages. The city beggar is an unhealthy, diseased and a wretched creature, whereas the one who is found in the village is healthy and able-bodied. Invalids, maimed and diseased cannot be successful beggars, for it is necessary for them to move from place to place. The number of the beggar visitors, the villagers say, is on the decrease. The Benares district is probably abnormal in this respect. Benares or Kashi is a place of Hindu pilgrimage, and hundreds of fakirs and beggars come there every year, and spread themselves out into the district.

ARTISANS

There is a uniform mode of payment prevailing throughout India. It is custom that determines wages. Village artisans are paid mostly in kind; there are, of course, certain types of work and articles for which they are paid in cash. The Kumhar, for instance, is paid in kind for the pots that he supplies from time to time, and payment in cash is made for the tiles supplied. For pots supplied on marriage occasions he is paid a fixed sum and a *dhoti*. The amount paid to him, of course, varies according to the ability of a person to pay. Besides these, he gets a fixed amount of grain from the cultivator at the time of reaping and sowing of crops. The same class of people do the work of the carpenter as well as of the blacksmith. They too are paid in kind. They are paid 35 seers half-yearly at the time of each harvest. The carpenter also enjoys the customary benefits at religious and social ceremonies. The payment made to him at the time of the *rabi* and *kharif* crops, is just for the repair of the tools and implements. For doing any other work they are paid at the time-rate, *i.e.*, eight annas per day. They, too, like the barbers and the Kumhars, get something at the time of sowing and reaping. The goldsmith is paid according to article he makes. The artisans employed for weaving carpets are paid daily according to their efficiency. The wage varies from five to ten annas per day. Such labourers enjoy no special privileges in the village.

LABOURERS

The total number of labourers in the village is thirty. This includes those who do any kind of work they get in the village, which their caste allows, and also those who just work as agricultural labourers, *e.g.*, as *halwahas* or ploughmen. The ploughmen are paid $1\frac{1}{4}$ seers of coarse grain daily when employed, besides an annual payment of Rs. 2 or Rs. 3 in cash. The agricultural labourer is the most unfortunate creature in the whole agricultural organisation. He toils from the break of dawn till late in the evening, and is hardly paid enough to make both ends meet. He is generally heavily indebted to his master, and this makes his position worse. Miserable and poverty-stricken as he is, he is the first to be affected by famines and epidemics, and it is here that one finds a slight cause for migration. A person heavily indebted to his master, would like to go away, to spare himself the sweating toils at his creditor's farm. Very few migrate. But those who do so, are not prompted by the motive of earning more income, but by the idea of emancipating themselves from the rigours of the toil, and the bitter scoldings of the creditor-employer. He is obliged to take employment with him, for if he does not, he is troubled with repeated demands, threats of law-suits, and what not. In order to spare himself this discomfort and unpleasantness he consents to work for him. Emigration is only temporary. Only the male members go to the industrial centres and return after six or seven months, with a little saving. The females remain in the village. The ties of home and the congenial associations in the village make them unwilling to migrate permanently. Besides, the cost of living in industrial towns is very high, and this too discourages permanent emigration.

HOUSES AND HOUSING CONDITIONS

The housing conditions in the village are far from satisfactory. Most of them are mud hovels, ill-ventilated and situated close

together. The total number of houses in the village is seventy-three. There are about twelve huts belonging to the Chamars, situated at a distance from the main *abadi*. The surroundings of these houses are insanitary. Small heaps of refuse and dirt are noticeable all round, which are the breeding-places for all kinds of germs. The habits of the people are highly unhygienic and the women, who stay in the house practically all the time, make the inside and outside of their houses more dirty by throwing water, dirt and dust. They have no appreciation for sanitary ways of living, and they make no efforts to improve them. Some of the houses of the Rajputs are brick-built, and have tiled roofs. These houses are large and spacious, and the upper storeys are generally well-ventilated. But the lower flats are usually dark and dingy, and badly ventilated. The *pucca* houses in the village number just fifteen, and are situated at a distance of about four yards from one another. All of these are situated in one line, and each has a spacious courtyard in front. The mode of living of the Rajputs is much better than that of others in the village. The surroundings of their houses are more sanitary. This is chiefly due to the fact, that these people are wealthy and appreciate education, and visit other cities.

The condition of women inside the house is far from what is desirable. They remain in *purdah*, and get very little of fresh air and the sun. Houses in which they live lack ventilation and the sun never finds an entrance into them. This is the chief reason why the women in India fall an easy prey to the unfortunate disease of consumption. The disease is prevalent mostly among the Mohammadans and high-caste Hindus who observe *purdah*. In this village these two classes of people form the bulk of the population.

The houses are low with no windows or skylights, and are all situated close together, some having common walls. No remedy can be suggested except that all should be demolished, and new houses should be built on an improved plan. There should be an ample space between the houses for the fresh air to pass freely.

These new houses should be built according to an approved and prescribed plan. In the canal colonies the Government gives the plan of the village, and the colonists follow that plan. The new villages are most sanitary with clean courtyards and surroundings. The District Board should pay more attention to the sanitary conditions of the villages. They should dig pits and make the people throw all their refuse in them. The whole district should be divided into circles, and a Sanitary Inspector should be put in charge of it. The villagers should be compelled to follow the elementary rules of sanitation based on local conditions, laid down for each circle. It was most encouraging to find people talking about better sanitation and the abolition of the *pardah* system.

LAND

Almost all the land under cultivation is irrigable and *do-fasli*, except the paddy-fields which grow only paddy and *khesari*. There is no special system of irrigation by which the paddy-fields might be irrigated. The crop, therefore, depends upon the uncertainties of rainfall. The scattered and fragmentary nature of holdings makes, in some cases, large-scale farming impossible, and the tendency is towards further subdivision. The disadvantages of the scattered and fractional holdings are too numerous to be discussed here. The average size of a holding is not more than a bigha, and in many cases it is much less.

The system of land-tenure in this village is different from that prevailing in other parts, because of its being situated in the Benares State. Occupancy tenancy here is transferable and hereditary. About 33 bighas of land are under occupancy tenancy. The rent is liable to enhancement after every ten years. About 49 bighas are held by tenants-at-will. There are no statutory tenants, but the relation between the tenants-at-will and the chief tenant is often cordial.

IRRIGATION

The importance of irrigation cannot be underrated in a tract of the country which is subject to uncertainties of rainfall. In order to ensure better crops and a regularity in obtaining them, a system of irrigation is necessary that would help them to gain these ends. Well-irrigation is very common in these parts. There are 17 wells and 7 tanks in the village. Six of the wells are situated in the village *abadi*, and are used exclusively for drinking purposes. Out of the seven tanks, three are situated in the village. One of the tanks is very large, and has water throughout the year. It is used chiefly for purposes of storing water, but came into existence due to people taking out mud for building their houses and cottages. They are practically useless, except that washermen use them occasionally for washing clothes. Their water is never used for purposes of irrigation. The remaining wells and tanks are used for purposes of irrigation. The tanks are used exclusively for watering paddy crops. These tanks prove useful only during the season when the rainfall has been heavy, and the tanks as a result get filled up. During the years of failure or deficiency of rainfall the tanks are of no avail.

Wells are used for irrigating the *rabi* crops and sugarcane. All the *rabi* crops except grain require watering. The number of waterings varies with the nature of the crop. The same old and crude systems of irrigation are in vogue, which were used centuries ago, the chief among them being the *mot* system and *dauri* system. The former is used for drawing water from the wells, while the latter from the tanks. In connection with the former, one *mot* or leather bucket, one or two bullocks, one large rope and a pulley are used; while in connection with the latter one earthen platter and ropes are used. It takes two men to work each one of them.

Three men with two bullocks take three days to irrigate one *bigha* of land. There are no streams or canals, perennial or seasonal, anywhere near the village. The present system of irrigation is far from satisfactory, and good deal of improvement is need-

ed in this direction. If villages are organized on cooperative lines, it would not be difficult to introduce tube wells. This would solve the difficulty to some extent. It would certainly be an improvement upon the present system which is most uneconomical. In certain tracts Persian wheels could be used with advantage. It would be impossible to bring about all these changes in the present condition of the villagers, but with a little education, it would be easier for them to understand and appreciate the advantage of these improvements. The Government should give more attention than it has hitherto been giving towards the spread of primary education.

RENT

In this village the cultivators are either tenants or sub-tenants. The tenants pay rent to His Highness the Maharaja of Benares. The rents for the fixed-rate tenancy are fixed once for all. And for the rest a settlement officer is appointed after every thirty years, who revises the previous settlement, and makes necessary alterations. Then there are sub-tenants or tenants-at-will, who pay rent to the Rajputs who are tenants-in-chief in the village. The Rajputs are not very exacting and very often they let the land on meteyage system. And when they do so, they share equally the responsibilities of cultivation with the tenants. The average rate of rent for non-fixed-rate tenancy is Rs. 7 per bigha, which is paid to the Maharaja. The tenants-at-will have to pay at the rate of Rs. 12 per bigha. The rents are not high. The State has done very little by importing agricultural knowledge into the State. The State must feel its responsibility, and do something to improve the condition of the soil, methods of cultivation and means of transportation. These improvements will result into a bigger yield per bigha, and consequently a general rise in rents. The State has shown so much apathy towards improvement of agriculture, that the methods still stand where they were three centuries ago. The methods of applying manure are not very satisfactory. They scatter the manure in the fields, and allow it to dry there, without cover-

ing it by ploughing, and thus bringing about its decay, leading to the creation of humus and other elements that increase the productivity of the soil by recuperation. Cow-dung is generally used as manure. But the most unfortunate thing is that the whole of the cow-dung available is not used for purposes of manure, more than half of it is burnt or is washed away by rain, thus causing a considerable loss to the cultivators. The villagers must be taught better methods of preserving manure.

CROPS

The land, as already pointed out, is *do-fusti*, and both the *rabi* and the *kharif* crops are sown. Some of the methods of cultivation are quite up-to-date and modern, whereas the rest antique and primitive. For instance, the method of rotation of crops is as good as any scientific experiment could discover. The cultivator knows what crops will replenish and recuperate his land. He considers *arhar* to be the best for this purpose. For sugarcane land is left fallow for a season, and about ten to twelve ploughings are given before planting. Wheat requires more fertile soil, and therefore follows *arhar* and sugarcane. Maize follows potatoes, and peas follow *bajra*. Maize requires a well-manured soil, and so do the potatoes. Wheat requires the greatest number of ploughings, generally between seven and ten, varying, of course, with the nature of the soil. The object in giving so many ploughings is to make seed-bed soft. This increases the rate of conversion of insoluble matter; into soluble, by exposing a large area of surface. Mr. Leake says, "the non-available mineral matter is converted into available plant food, and on the rate of conversion will depend the size of the minimum crop obtainable."

The chief *kharif* crops grown in the village are rice, *jawar*, *bajra*, maize, *til*, *urd*, *mrua*, *kuda*, *sawan*. while the *rabi* crops grown are wheat, barley, gram, peas, potatoes. *Arhar* and sugarcane require almost the whole year for ripening. The *rabi* crop, in general, requires more ploughing and watering, while the *kharif*

crop requires more of weeding. Paddy, *javar* and maize all require two to three weedings. The object of cultivation is just to raise what is necessary for the satisfaction of wants which are so simple and few. No cultivator in the village cultivates on commercial basis. But, of late, the agriculturists have taken to the cultivation of sugarcane and potatoes.

INDEBTEDNESS

For the villagers borrowing seems to be a necessity. Most of the people in the village are in debt. There is no specific purpose for which borrowing is done, but it is done for anything imaginable. The field-labourers generally borrow for purposes of consumption and marriages. Higher classes borrow for litigation and ceremonies, both marriage and funeral, and sometimes for paying revenue. The weavers generally borrow from the carpet-exporting firms on a very low rate of interest. The weavers are very thrifty and frugal. As they borrow just for productive purposes, unlike others they find no difficulty in repaying it.

The Rajputs are the most improvident class of people. Though well-placed in life, they are the ones who are head over heels in debt. But with the spread of education, the old ideas are generally being replaced by better ones, and the new generation is exerting its influence to get their parents released from the heavy shackles of debt. There is only one money-lender in the village who satisfies the petty needs of the small cultivators; others borrow from outside. The general rate of interest for loans which involve greater risk is 24 per cent. But in cases of mortgage and good security only 12 per cent is charged. There is no co-operative society in the village. *Takari* is not popular, as there are so many difficulties in the way of finding an access to the Government officials. The cultivators like the money-lender very much. They look upon him as their greatest benefactor. He is the only person upon whom they can depend for meeting their urgent and untimely calls for loan. The money-lender does

not belong to the professional class, but has been attracted to it chiefly by the lure of a high rate of interest obtainable. Like the money-lender in the Punjab, he is not altogether deprived of altruistic feelings and philanthropic considerations. Ordinarily he does not trouble the debtors, except in cases where it is difficult to recover the loan. Even then his molestations do not exceed the limit. He neither cheats by making double entries, nor by keeping several books. The villagers do not grudge the high rate of interest, for it has become almost customary. The general experience is that when one falls into debt it is difficult for him to get out of it, at least within his lifetime. Once indebted always indebted, says a proverb prevailing in those parts.

MARKET AND TRANSPORTATION

The nearest market is at Gopigunj, a distance of about six miles from the village. The villagers do not take their produce to the market themselves. They sell it to the middlemen, a class of petty buyers who carry it to the market. They generally have their own pack-animals. The vegetable products are purchased by the Kunjras who carry them on their pack-animals to the neighbouring cities.

GENERAL IMPRESSIONS

The village is passing through a period of transition. The villagers are fast imbibing the modern ideas, and are adopting the use of machine-made goods. The old earthen *dia* has been replaced by hurricane lamp, and the bamboo umbrella is no more to be seen. People have begun to talk of improvements in agriculture and reformation in other departments of their life. The Government official is no longer a terror for the villager, and education is becoming increasingly popular among the higher castes. The number of boys in school has increased, and the higher classes have realised the advantages of higher education. There is no prejudice against education. It is the poverty of the people that

hinders them from sending their children to school. They cannot afford to bear even the small cost of primary education.

The standard of living has risen slightly, and there is a marked tendency towards further rise. But it should not be construed from this that the rise has attained the desired limit. Some of the people in the village who get once in a while an opportunity to go to cities like Allahabad, Benares and Lucknow, have taken to the use of more fashionable articles. But it is noted with very great concern that the quality of food has deteriorated.

The condition of the cattle is most unsatisfactory. They are lean and thin creatures. Want of sufficient care and fodder has reduced them to mere skeletons. The milk yield of the cows has hopelessly fallen, and milk even for children cannot be obtained. People should introduce better breed of cattle and grow more fodder. The increase in the amount of fodder will doubtlessly improve the condition of the cattle. Improved system of stabling is also a necessity. This will save so many from disease and cattle epidemics. With these improvements the condition of the cattle will become better, and they will work harder, leading to an increase in the produce.

The quality of the seed is very poor. The villagers have never heard of the improved varieties of Pusa wheat. It is so disheartening to note the Agricultural Department concentrating its energies and attention upon experiments at particular places in the country. No effort is being made to broadcast the successes a measure will remove the frightful ignorance into which our cultivators and others living in the villages are steeped. They of their experiments for the benefit of the villagers. They should popularize some of their methods of cultivation and the results of their experiments by the publication of pamphlets and bulletins in all the vernaculars, and distribute them free of charge in the villages. The Naib-Tehsildars and some other Government officials, in addition to their regular duties, be required to lecture subjects such as hygiene, sanitation, improved seed, etc. Such to the people in the different villages within their jurisdictions, on

will as a result begin to use better quality of seed and improved implements.

Primary education ought to be made free and compulsory. The curriculum for the primary schools should include agriculture as a compulsory subject. Education will give to the villagers a broader outlook and keener insight into things that surround them. It will decrease litigation, and will considerably reduce expenditure on social and religious ceremonies. This will mitigate one of the main causes for the indebtedness of the rural population. The chief obstacle in the way of starting a co-operative society is illiteracy and rank conservatism of the people. With education will come the appreciation of things and institutions which are likely to help them towards improving their condition. Groundless suspicions and false fears will be altogether uprooted.

Another problem that ought to invite the attention of those interested in bettering the condition of the villagers is the problem of the fractional and scattered holdings. The law of Succession is chiefly responsible for this evil. Some scheme should be devised by which consolidation of holdings may be possible. The Government could help considerably in this connection. Propaganda amongst the cultivators in favour of the consolidation of holdings should be started, and the Government should provide every facility to those cultivators who wish to exchange their holdings. Much time and energy is wasted under the present condition of holdings. With further sub-division they are getting smaller and smaller every year. It is probably difficult to change the law of Succession under the present conditions, but it is certainly possible to allow the father to regulate his own inheritance among his sons. This is likely to arrest further subdivision.

A PLEA FOR THE SCIENTIFIC STUDY OF THE ECONOMIC ASPECTS OF INDIAN LAND TENURES

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Introduc-
tion.

1. Ever since the beginning of British rule in India, the subject of Land Tenures has been engaging the attention of both administrators and jurists. The reports which have been drawn up by the former and the volumes which have been written by the latter on the subject, would, if collected together, form a respectable library. They would provide sufficient material for the life-study of an earnest and laborious person. It may perhaps be doubted, however, whether at the end of his arduous career, the student would have a clearer view of the subject than what he started with at the beginning.

2. Vast as is the literature on Indian Land Tenures, little of it deals with their economic aspects. Only the fiscal and the legal sides have been engaging attention. The British administrators have described the tenures as the channels through which the tax-collector has been drawing the portion of the produce of the land, to which the Government in India has been from time immemorial entitled. They have attempted to explain how the forms of holding land have been altered by successive rulers in India from age to age to suit the fiscal needs of the State. In their own turn they have done likewise. As regards the jurists, they have interpreted the tenures as legal institutions involving the

rights and duties of different persons. Both the classes have helped to alter the character of those relations by reading into them the European notions of State-ownership of land, of contract between landlords and tenants and of economic rent. As yet, however, no economist has come forward to investigate the relation that exists between the methods of land-holding in India and the productivity of the land, though this is of the greatest practical importance.

3. When the appointment of a Royal Commission The Royal Commission on Indian Agriculture. to enquire into Indian Agriculture was announced, it was hoped that such an investigation would be made, and its results published. The Report of the Commission has, however, disappointed us in this matter. It contains precious little on the economic relation between systems of land tenure and methods of cultivation. On behalf of the Commission it may perhaps be argued that this enquiry was beyond the scope of its work, as the terms of reference to the Commission contained the following *caveat*: "It will not be within the *Caveat.* scope of the Commission's duties to make recommendations regarding the existing systems of land-ownership and tenancy or of the assessment of land-revenue and irrigation charges. . . ." It may, however, be contended that this restriction did not prevent the Commission from *examining* the *economic* aspects of the main systems of land-holding in India, though they need not have gone to the extent of making specific *recommendations* thereon. The worst of the matter is, the Commission does not appear even to have recognised the importance of the question.¹ This is clear from the fact that they have not cared even to recommend the starting of such an enquiry, though their list of recommend-

¹ The only exception is in the case of zamindars whose rights the Commission wishes to enlarge so as to facilitate capitalist farming (*vide* Report, pp. 42-46).

ations at the end of each chapter of their Report runs to several pages. It may also be mentioned in passing that in many important cases their recommendations are only in the form of suggestions to Government to start further enquiries, before taking any definite course of action. The Commissioners would not be blamed if they had similarly called the attention of Government to this question as well.

Dr.
Voelcker's
view.

4. In this connection it is interesting to note that Dr. Voelcker, whose report on the Improvement of Indian Agriculture was submitted to Government as early as 1893 and which has been of invaluable help to the Royal Commission, has not neglected this subject. He has devoted one whole chapter to what he calls the "Economic and Political Conditions" affecting the agricultural practices of different parts of India, though he did not attempt to exhaust all the aspects of Indian agriculture as the Royal Commission has attempted to do. Among them he has included "the varying systems of land tenure, the relations of tenant to landlord and of people to the State" (*vide* his Report, p. 288, para 392). He has written: "These and many others are matters which exercise an important bearing upon the way agriculture is pursued and if I do not touch upon them, it is not because I am not aware of their importance, but because I do not feel myself qualified to treat of them." There was no such limitation to the equipment of the Royal Commissioners, which among others included experts in Indian Agriculture like Sir James Mackenna and the late Sir Ganga Ram, veteran land-revenue administrators like Sir H. S. Lawrence and Mr. H. Calvert and keen students of Indian Economics like Dr. Pyder and N. Ganguli. It may also be mentioned that the only justification for the appointment of such a large body of experts of varied knowledge and

experience, who toured over the country at great expense, was the hope that they would be *thorough* in their work.

5. Even if, for some valid reasons, the Commission had ignored the cue given by Dr. Voelker, it is surprising that the more recent procedure adopted by the Agricultural Tribunal of Investigation in England (1922—24) escaped the attention of the Commission, though one of its most important members—Sir T. H. Middleton—had co-operated with the English Tribunal in its enquiry, and contributed two valuable Memoranda to its final Report. As that Report itself declares, the Tribunal devoted considerable attention to the question of tenure of land (*vide* Final Report, page 37). What was possible for a small committee of four Academicians to do, it must have been extremely easy to accomplish for a body twice its number, assisted as they were by an army of experts of various departments and of various grades.

The Procedure of the Agricultural Tribunal of Investigation in England.

6. The explanation for the omission is perhaps to be found in the deplorable neglect of Agricultural Economics in our country. Our own Association has to share the blame for this neglect. In India we have been pursuing our economic studies from the wrong end as it were. We start with the Economics of Industry and then if we have time, patience and inclination, turn to the Economics of Agriculture. Even when we do so, we fail to pay attention to the fundamental differences between the organization of Manufacture and of Agriculture. As Prof. Macgregor writes: "In important respects it (Agriculture) differs from Manufacture The farm is an enterprise which is not financed or managed on the joint-stock plan. It depends mainly on the resources and administration of one man. It consists in a number of relatively small enterprises, the

Some Peculiarities of Agricultural Economy.

success of which depends on there being an adequate agricultural substitute for the industrial joint-stock method of obtaining working as well as initial capital. This is the problem of Agricultural Credit." (Final Report of the Agricultural Tribunal of Investigation, pp. 106 et seq.) The same economist then goes on to point out other effects which flow from this one-man character of agricultural business, such as (1) the difference in the outlook of the skilled agricultural labour as compared with the industrial artisan, (2) the difficulties of agricultural marketing and (3) the scattered character of the individual farms rendering the application of the results of scientific research most difficult if not practically impossible. It may also be added that in the case of small farms, the land is itself the larger part of the capital employed in the industry. Further, cultivating the land is for many a *mode of living* rather than a *business*. These characteristics of Agriculture, which are of the utmost significance in India, fundamentally affect its methods. In one word, while we may distinguish between the social and economic aspects of Trade and Manufactures, we cannot draw a similar line in Agriculture. Agricultural Economics is pre-eminently *Social Economics*. We have to congratulate the Royal Commission on this matter, viz., that throughout their Report they have recognised the *sociological* aspects of Agriculture, and in their concluding chapter they have rightly emphasised that the improvement of Agriculture is only one of the aspects of the Rural Problem in India, and that the latter "should be attacked as a whole and at all points simultaneously." (Para 581.) If the Commission had borne this in mind throughout their *enquiry*, and not merely in drafting their Report, they would not have neglected the question of land tenures. On the contrary, they would have called our attention

to the close connection between Rural Reconstruction and the reform of tenurial laws and customs.

7. As it is, some of the most important problems of Indian Agriculture, which the Commission has investigated and on which they have made a great number of recommendations, being closely connected with the forms of land tenure, have not been properly dealt with. The chief problems which have engaged the Commission's attention are (1) Animal husbandry, (2) Utilization of forests, (3) Irrigation, (4) Sub-division of holdings and fragmentation of land and (5) Rural indebtedness and financing of agriculture. Every one of these questions has an intimate connection with the forms of land-holding prevalent in India, of which the Commission does not seem to be aware.

The chief problems considered by the Royal Commission on Indian Agriculture.

8. First, with regard to *Cattle-breeding*, the Commission has, it must be stated, taken rather a gloomy view. It may be, there is some justification for it. But the difficulties of the problem are partly historical, resulting from the short-sighted policy of the Government in regard to waste land—a fact which the Commission has not taken note of.² In all parts of the country where the permanent settlement of land-revenue has not been established, all the waste land has been regarded as belonging to the Government. In its anxiety to increase its land-revenue the Government has been increasing the area under cultivation and *pari passu* diminishing the land available for pasture. Further, the break-up of the communal life of the village brought about by the disintegrating methods of British Land Revenue Administration has also contributed to the evil. In olden days when community life was stronger in

² They have gone out of the way to point out that "the complaint that cattle in India are deteriorating is an old one" (Report, p. 191), but have not been able to adduce anything more than some vague second-hand evidence (*ib.*)

villages and their inhabitants had common rights of user in the waste land surrounding the village, the condition of the village cattle was not so deplorable as it has now become. Perhaps it is now too late to restore the old state of affairs in those parts of the country where the process of the conversion of waste land into arable land has gone too far, but it may be possible for the Government to correct the mistake in the less developed parts of India, including Burma.

9. In the matter of *Forest* Administration also, Government monopoly and centralised administration have gone too far. The Forest laws of British India recall to our mind those of the Norman rulers of England. It may be that owners of flocks and cattle do not appreciate the economic importance of forests as the Government officers do, but it may be pertinently asked whether the Government has made adequate provision for the needs of the people in the matter of cheap fuel for their domestic use and good fodder for their cattle.³ In the absence of such provision it is not to be wondered that the people frequently trespass into Government reserves. A small beginning has been made in the Madras Presidency in this matter, namely, the transfer of the administration of small minor forests to village Panchayats. (Report, p. 270.) Greater progress should be made in this process, all over the country. It should be remembered that the problem of cheap fuel is not only of social welfare but of agricultural economy, for in the absence of firewood, a large part of farmyard manure is used as a substitute for it. (Report, p. 82.) This practice has been condemned by all acquainted with Indian Agriculture but the cure for it is only a provision of cheap fuel in other forms.

³ It is to be feared that in many provinces including Madras and Bengal, they have not done so (*vide* Report, Appendix VI, p. 704).

10. In the matter of *Irrigation* also questions of land tenure are occasionally involved. (Cf. Report, p. 343.) A recent attempt to codify the rules regarding irrigation in the Madras Presidency proved futile because the Government was not able to see eye to eye with land-owners in the matter. In zamindari tracts the respective rights of the zamindar and the Government in the water resources have been matters of constant dispute. Even in the ryotwari tracts the restoration of tanks which are such an important form of irrigation works in the Madras Presidency, parts of Bombay and in Central India and Rajputana, would have been more successful if the Government had entrusted the work to village bodies.⁴ In olden days village communities constructed small 'tanks' and against it they had the privilege of holding the land under the irrigational sphere of the tank on more favourable terms. A similar policy should be followed again. Instead of creating new fangled co-operative irrigation societies as the Commission has recommended (*vide* paras 279 and 281). Village Panchayats should be organised and entrusted with the duties of maintaining old works or constructing new ones and regulating the distribution of water in villages, subject to the control of P. W. Officers. (Cf. Report, pp. 338 and 508.)

11. Turning our attention to another problem of Indian Agriculture to which the Commission has devoted ^{Owner's} ^{holdings.} a whole chapter in their report, *viz.*, the *Sub-division and Fragmentation of Holdings*, we are struck by two facts: (1) the total absence of statistical information on the matter and (2) the confused treatment of the subject. While the Agricultural Statistics of every advanced country furnish accurate information about the tenure..

⁴ The Commission has had to find fault with Government in the matter (*vide* Report, p. 338).

number and size of holdings (*vide* Economic Inquiry Committee's Report, App. I, p. 67), the Government of India supplies details only about land-revenue *assessments* on the area and population of each province. Even in ryotwari provinces like Madras and Bombay the information relates to the classification of ryots in villages according to the amount of land-revenue paid by them rather than according to the acreage owned or cultivated or owned and cultivated by them. Consequently, though all are aware of the existence of sub-division and fragmentation of holdings, nobody knows in which areas they are very prominent and how far they have gone in them.⁵ Nor have the various causes which have brought about the evils been thoroughly investigated. No doubt, as the Commission has pointed out (paras 119 and 121), the laws of inheritance customary amongst Hindus and Mahomedans and the methods by which those laws have been carried into effect are to a large extent responsible for the sub-division and fragmentation of *owners'* holdings respectively. It may be said in passing that the British administration of these laws has itself aggravated the evil during the last 80 years—a fact the Commission has ignored. It is a pity the Commission has not investigated how far the land-revenue policy of the Government of India during the last century has tended to accelerate the process. It is a matter of history that the British Government broke up village communities in many parts of the country—particularly in the south—and made individual ryots responsible for their quota of land-revenue. In doing so they encouraged the sub-division of owners' holdings. They have also been encouraging the settlement of stray cultivators on small bits of land, which from the very beginning

⁵ It is only in the Province of the Punjab that anything like a comprehensive enquiry has been attempted. (Cf. Report, pp. 132 and 504.)

were too small for economic utilization. We may in this connection point to the settlement of demobilized sepoys on small vacant plots in various parts of India.

12. As regards the sub-division and fragmentation of holdings among *cultivators*, which is really the greater ^{Cultivators' holdings.} evil and which according to the Commission is the more pronounced (para 120), one has to greatly deplore the absence of statistical information on the subject. Here again the Commission has not pointed out *all* the causes which have brought about the evil. Lack of alternative employment to the villager is no doubt an important cause as the Commission has observed (see para 120), but a more important one seems to be the *poverty* of the cultivator. He has no capital worth the name and all that he can apply to the land is his labour and that of his family. Consequently he is able to take up only a small bit of land for cultivation and he wishes to raise some cheap food-grains on it for his own subsistence, though with some application of capital he might be able to produce richer commercial crops. Fragmentation would not perhaps be such a great evil if more intensive methods of farming were practised. (Cf. Report, p. 416.) But the first requisite for intensive cultivation is capital, which the cultivator almost always lacks. This remark applies equally to *cultivating ryots*. Their first concern is to provide food-grains for themselves and their families. Consequently, land which might grow more remunerative crops is given up to the growing of grain-crops and the best use of it accordingly is not made. (*Vide* Voelcker's Report, p. 289.) One remedy for fragmentation would therefore be to induce the cultivators to put the smaller bits of land which fall to their lot or which they lease, to better uses than the raising of grain-crops by giving them greater credit facilities. (*Vide* Report, p. 416.)

Relation
between
Sub-
division and
Land
Tenures.

13. The Report does not discuss what relation exists between these evils and the systems of land tenure prevalent in the country.⁶ It may be hazarded however that these evils seem to be more rampant in those parts of India where no middleman comes between the cultivating-owner and the Government than when a taluqdar or zamindar intervenes. All the provinces where legislative action has been either taken or called for, are what may be called non-zamindari tracts, *viz.*, the Punjab, Central Provinces, Bombay and Madras. (Report, pp. 132-33.) It is therefore worth investigating how far the systems of tenure existing in these Provinces are responsible for the growth and intensity of these evils. If there is an inseparable connection between the two, any kind of legislation which does not improve the character of the tenures will prove futile. Mere 'Consolidation Acts' will not suffice.

Inquiries
preceding
legislation
in the
matter.

14. Before the Provincial Legislatures proceed to carry out the recommendations of the Commission in the matter, therefore, they should arrange for the making of preliminary enquiries into *the extent, the character, the causes of the evils*. Otherwise Consolidation Bills will share the fate of the Bombay Bill of this year (1928). That event shows that public opinion is not yet educated enough to see the need for legislation in the matter. But when the necessary information is lacking, public support cannot be expected. Further, before the Legislature takes up the question, the agricultural economist should be asked to decide what an *Economic Holding* is, below which fragmentation should not go. The Commission has quite properly turned down the proposal to form impartible "economic holdings" (*vide*

⁶ The Commission seems to have been aware that some connection exists between the two but they have refrained from explaining the question. (Cf. Report, pp. 129-131, 135.)

para 123). In fact there is no such thing as an Economic Holding in *the abstract*. (Cf. The views of the Madras Board of Revenue referred to on page 137 of the Report.) The size of an economic holding depends on a number of factors—the nature of the soil of the plot, its irrigational facilities, the character of the crop which is or can be raised on it, the facilities for marketing the produce, the caste and social position of the cultivator, etc. There could therefore be no *standard* size which the legislature can attempt to establish over a wide area. There is again another difficulty. How is the remedy to be adjusted to the character of the tenures—ryotwari or zamindari as the case may be? One thing is clear—the character of legislative or administrative action which may suit the one may not be proper or necessary in the other case.⁷

15. Again, even assuming that it is possible by legislation to prevent the sub-division of *owners' holdings*, how are we to prevent the fragmentation of *cultivators' holdings*? The Commission has not suggested any remedies for it. It cannot be maintained that when owners' holdings are consolidated, the cultivators would necessarily take them up as integral units. As a matter of fact, it is not so. Even when ownership extends over large estates, the cultivation is on a minute scale. The land is divided into small plots and leased out to petty cultivators who can bring only their labour to the plot. How could Consolidation Acts cure this evil—an evil which according to the Commission itself is the greater and more extensive (para 122)? These are all problems which only the Agricultural Economist could solve.

16. Only one other question remains, namely, the problem of *Agricultural Finance* in which is included

⁷ It is also worth noting that the land-revenue systems will in practice impede the consolidation of *owners' holdings*.

Agricultural Indebtedness. The points for consideration under this head are: (1) how to relieve the cultivator of his existing load of debt, (2) how to protect him in future against his own improvidence, and (3) how to save him from the clutches of the money-lender. Land-mortgage banks, restraints on alienation and co-operative credit have been recommended for these several evils respectively. But these have only a limited field of application. They can at best improve the lot of *owner-cultivators* only. What about the many millions of tenants of various grades who have no right of ownership to land? What relief could they get from these contrivances? How are their financial difficulties to be solved? Again, there is a large class of people who are absentee landlords. Why should they be given any protection or relief? Would it not be better to allow them to alienate their land freely? All these interrogations point to the fact that even in considering this problem of finance we cannot leave out of consideration the forms of tenure obtaining in the several parts of the country. The remedies for agricultural indebtedness would have to be adapted to the different classes of the agricultural population, the different kinds of tenures which govern their relations and their different economic position. One example may be given in illustration. The ordinary type of agricultural credit society is the unlimited liability society without any large share capital. This may be all right for owner-cultivators. But what help could it render to (1) the 38 million farm-labourers and servants and (2) the many millions whose total strength is not known, who lease and cultivate the property of others, having no land of their own?

General
Remarks
on the Royal
Commission's
discussions.

17. We have thus gone through the list of important problems discussed by the Royal Commission on Agriculture and have attempted to indicate briefly how their

character is affected by the forms of land tenures prevalent in different parts of India and how the remedies suggested by the Commission for solving the problem will have to be suitably modified or adapted to the different conditions of land-holding. It is a matter for regret that the Commission has, by adopting a narrow interpretation of their terms of reference, ignored these aspects of the questions which they have investigated and made recommendations on.

18. There remains to mention two other problems of Agricultural Economics which the Commission has totally ignored and which are of vital importance in the problem of Agricultural Improvement:—

- (i) The relation between the form of land tenure and the methods of cultivation;
- (ii) the relation between the size of the holding and the efficiency of cultivation reckoned according to (a) area, (b) labour employed.

These questions have been investigated with great care both by Governments and private individuals in other parts of the world. It may be mentioned, for example, that the Bureau of Agricultural Economics of the United States Department of Agriculture, a few years ago, made an exhaustive enquiry, by means of a series of surveys into farm ownership and tenancy in that country, and has discussed at length the question of the 'relation of types of tenure to efficiency in farm operations.' The results have been embodied in the U. S. A. Agricultural Year Book of 1923. Their conclusions are rather significant, in view of the common impression that the man who owns his farm will secure greater produce from a given plot than the one who rents it. According to the Report, "the available statistics indicate that efficiency is less a matter of the class of tenure than it is of the personal qualities

Relation between
(i) Form of
tenure and
method of
cultivation.

of the farmer, the character of land and the adequacy of farm equipment and operating capital." One would like to know what would be the results of a similar enquiry in India. Anyhow, it would not only be of academic interest but of practical importance as well. In framing or amending tenancy laws, which are the order of the day now, due attention could be paid to their economic aspects, if the relation between tenancy and productivity is known for certain. Students of Indian Economics have to deplore that in the passing of tenancy laws in the past only the historical and legal aspects have been considered by the Legislatures and the economic aspects have been tacitly ignored. The reason for this is, of course, the total neglect of the study of this aspect of land tenures in India. It is time that a change is made in the matter. Tenancy laws should be so framed that while protecting the just rights of the renties class, the economic freedom of the tenantry should also be enlarged, otherwise all attempts to improve the methods of agriculture would prove futile, because tenures are the *foundations* of the agricultural system.

(ii) Size of holding and efficiency of production.

19. The other question—the relation between the size of the holding and the efficiency of production—has also been coming to attract more attention in Western countries in recent times, and is bound to come into prominence in India also. It should be noted that these are two *criteria* of productivity—yield per acre of cultivated land and yield per man power employed on the land. The two are very different. It has been proved by means of statistics collected in England, that, as the size of the holding increases, production per acre diminishes but production per man increases in all kinds of farming—arable, sheep and cattle farming. (See Rew, *A Primer of Agricultural Economics*, pages 61-62.)

We should like to know whether similar results would be yielded by Indian enquiries. The scope for making such investigations, however, is rather limited in our country. Farms are almost always of very small size, capitalist-business-farming is in infancy and farm-accounting is totally unknown to our cultivators. In these circumstances, it is only our Agricultural Colleges and Research Institutes which could undertake such enquiries. Their results will however be of more than academic value. They would enable Government to develop a better land policy than what it has been following, if really there has been anything like a policy in any part of India in the past. It may be that the Government will have to adopt two different plans of land policy; in certain tracts where the population is thin, the Government would have to encourage large-scale capitalist-farming and in other parts where the problem of agriculture is to find food for the crowded population, greater application of labour in small farms will have to be encouraged. In a vast country like India, with great differences of soil, climate, water-supply, tenure, character of the agricultural population, etc., no uniform policy can be followed with satisfactory results.⁸

It is well that agriculture, land tenure, and taxation are *Provincial* subjects; it would be better that they all become *Transferred* subjects, and it will be best that in their administration greater attention were paid to the economic aspects.

20. In the foregoing pages I have merely called Conclusion, attention to certain aspects of Indian Land Tenures which have so far received scant notice at the hands of

⁸ Again, as a result of such an enquiry, we may be in a position to know what is the proper size of a farm for the raising of commercial crops like jute, cotton, tobacco, sugarcane, etc.

administrators and academicians. It would be well if our Conference passes a resolution recommending the scientific study of the question in all its bearings by our Universities as well as by our Governments.

THE BRITISH LIBERAL INDUSTRIAL INQUIRY

BY

A. RAMAIIYA,

Vakil, Madura.

With a view to formulate a programme of reform on the general lines of Liberal policy, a group of men with experience in economics, politics and industry started an inquiry into the condition of British Industry and Trade, and after spending more than a year in gathering material and taking evidence, have published the results of their investigation in the form of a book under the title "Britain's Industrial Future."¹ The authors are certainly not in agreement with the principle of the Labour party who are directly opposed to the capitalist system, nor are they satisfied with the excessive caution and acquiescence in existing conditions which characterise the attitude of the Conservatives. They recognise that the Industrial system has not yet attained an adequate standard either of justice or of efficiency, and that the present social order with its inequalities of wealth and status, denies a real liberty to a great proportion of the population; and they are also convinced that the end of all economic and political action is the promotion of the welfare of the community, and that the essential purpose of Democracy is to create the conditions necessary for this purpose. But they are not for a change in the existing organisation of society and do not agree with the Labour party slogan that the individualist system of capitalist production based on the private ownership and competitive administration of land and capital has failed in the past to adequately utilise and organise the productive powers or provide the necessary standard of life for all. They are positively opposed to State Control or

¹ Britain's Industrial Future, being the Report of the Liberal Industrial Inquiry. Ernest Benn (London).

nationalisation of industry for its own sake, and not prepared to hold that it is the positive duty of the State to secure to every member of the community the requisites of healthy life and worthy citizenship. They would at best impose only a negative duty on the State, "of securing that no member of the community shall be denied the opportunity to live a full and free life," the problem, according to them, being only "how to cure what is unhealthy in the existing economic body without injuring the organs which are sound."

After a preliminary survey of the present condition of British Industry, the results of their enquiry are brought together under four heads: (1) The organisation of business; (2) Industrial relations; (3) National development; (4) National finance. Under the first head there is an able and original analysis of the various forms of business organisation and the conclusion is reached that under present conditions there is no scope for any further extension of State Control, but it is recognised that there is need for the consolidation and reorganisation of the existing field. The most important constructive proposal that is offered is the constitution of a Board of National Investment for the purpose of concentrating and canalising in proper directions the stream of national investment which is at present chaotically controlled by a multiplicity of public authorities and private bodies. Another noteworthy suggestion is the establishment of an Economic General Staff for a continuous study of economic problems affecting national policy and the development of Industry and Commerce, and for advising Government on such matters, acting in close conjunction with a standing committee of the cabinet to be known as the Committee of Economic Policy. Some minor suggestions are also made for improving economic information, by the co-ordination and rapid publication of all available statistical and other material and a continuous census of production; for stimulating business efficiency by collaboration between industrialists, labour organisations and the State in the application of research to industry and in fostering standardisation, technical

knowledge, vocational instruction and training; for effective control of joint-stock companies by stringent requirements as to their audit and publication of accounts and supervision by a Supervising Council, and for subjecting monopolistic undertakings to strict scrutiny with regard to price-fixing in the public interest.

The next head dealing with Industrial Relations also contains a well-reasoned discussion of a complex situation. But one feels that there is here a tendency to over-emphasise the extent and bitterness of industrial strife in British—perhaps the political motive was at work. For securing industrial peace and social justice it is suggested that the establishment of a Ministry of Industry taking over the work of the existing ministries of Labour and Mines and the industrial work of the Home Office and the Board of Trade, is necessary, and that, associated with that Ministry there should be a small Council of Industry to deal with industrial problems and supervise the work of Trade Associations. For improving workers' relations in general with their employers, the adoption of the German system of Works Councils is recommended, for drawing up works rules and to deal with dismissals and receive information as to trading facts and prospects, and factory organisation and proposed changes therein. By far the most important of the topics discussed under this section relates to the problem of improving the workers' status and tone of life. In the words of the Report, the goal towards which the Committee aim is a society 'in which everybody will be a capitalist and everybody a worker, as everybody is a citizen.' For the attainment of this goal it is suggested that there should be as wide a diffusion of the ownership of industry as possible among the industrial wage-earners, so that the existing distinction between the owning class and the working class may disappear. The road to this is pointed to lie in high wages, profit-sharing, the encouragement of savings among workers and facility for their wise investment and through such other measures as may be practicable to secure a better distribution of inherited wealth without discouraging initiative and enterprise.

Next comes a programme of National Development. The first point dealt with in this connection is the problem of unemployment. With regard to unemployment due to cyclical or seasonal causes or caused by industrial improvement or change, the Report itself admits that it has no new or definite remedies to offer. The Committee therefore confine themselves to the problem of relieving unemployment due to abnormal causes and they suggest that to the extent to which it cannot be relieved by the existing system of Unemployment Insurance, the State should assume direct responsibilities and treat it as a national function and a charge on the national Treasury. It is surprising that the Report says not a word about the feasibility of nationalising and bringing under the control of a State Department as a public concern, the entire system of Industrial Insurance itself for which there can be no objection on any conceivable economic grounds. The other portions of the book relating to National Development take the character of an election programme and are intended *inter alia* to solve the problem of unemployment. They relate to a vigorous policy of national reconstruction embracing within its scope the rehabilitation of agriculture, an extensive programme of highway development, afforestation, reclamation and drainage, electrification, slum clearance and town-planning and the development of canals, docks and harbours. To formulate a consistent and comprehensive policy in this connection, the constitution of a Committee on National Development is suggested, and all schemes which it puts forward are to be financed under the direction of the Board of National Investment, already referred to.

Lastly we are taken to a critical study of the system of National Finance where many useful practical proposals are made. It is pointed out that though in the opinion of the authors of the Report nationalisation of the banking system of the community as a whole is undesirable and objectionable, the national character of the Bank of England should be emphasised by a permanent limitation of the dividend payable to the shareholders, all surplus profits being retained for national purposes. With regard to the

Budget Statement and the Finance Accounts it is shown how improperly they have been manoeuvred during the past two or three years under the Conservative regime, and how necessary it is, if the House of Commons should have real control over national economics, that the Budget should clearly state the various kinds of revenue, and the accounts draw a clear distinction between expenditures which are in the nature of investments or otherwise remunerative and those that are dead-weight burdens. Unless the Budget is divided under the three heads, *Cash Account*, *Income Account* and *Capital Account*, there is room for financial jugglery. How many members of the House of Commons, for instance, realised that in 1925-26 and 1926-27, the Exchequer brought into account as current revenue receipts amounting to £87,000,000, that did not in any proper sense of the term belong to revenue levied or accrued in those years? Unless a reform of the National Accounts is effected on the lines indicated in the Report, neither the House of Commons nor the public will be in a position to know the exact financial situation and advance intelligent criticism. The Committee is of opinion that the existing system of national taxation in Britain is well-conceived and has been of much service in the past in moderating economic inequalities. They urge a reduction of the War Department expenditure, but do not desire any further extension of national taxation. But they strongly advocate a reform of the local rates which injuriously affect industry by raising production costs and hitting heavily the more depressed industries and throwing a burden on the workmen out of all proportion to the burden on the wealthy. Financial reform in this respect is very urgent. In order to relieve the local rates it is suggested that poor relief in so far as it relates to the able-bodied poor should be transferred to the National Government where it may be co-ordinated with the existing machinery for administering unemployment insurance, that a substantial portion of the expenditure on roads may be transferred to a Road Fund under the control of the National Government and that the present system of grants-in-aid should be extended.

Such, in brief, are the main suggestions embodied in the Report of the Liberal Industrial Inquiry. It is thoroughly an economist's report and not a politician's, political purpose being thrown to the background. Most of the proposals for reform contained in the Report are such as to undoubtedly find favour with the Labour party, even though the fundamental basis on which the Report proceeds, *viz.*, the capitalist system, is opposed to Labour aims. Whether capitalism or socialism should ultimately prevail, the reforms for which the Liberals stand are certainly a great step towards the progress which either party would desire. But there is no prospect of any consolidation or lasting co-operation of both Liberals and Labour for presenting a united front, as their aims are so fundamentally different.

NOTES

As was expected, the Labour Ministry in Great Britain has lost no time in initiating changes in Government's economic policy which had been already foreshadowed and promised. Though inwardly believing in the virtues of protection, the Conservatives had not dared to tamper materially with the revenue tariff of the country and had preferred flank attacks to frontal onslaughts on the traditional fiscal faith. Both the Liberals and the Labourites resented the McKenna and the Safeguarding duties but had to put up with them helplessly so long as the Conservatives held overwhelming power in the House of Commons. Their opportunity came with Labour victory at the general election and the first important parliamentary battle was fought between free traders and protectionists in the course of the debate on the Address. The Liberals voting with the Government, the Ministry defeated the Conservative amendment with a handsome majority on the question of protection and preference. Mr. Snowden left no doubt on the mind of his opponents as to the policy of 'thorough' that his Government had decided to follow in the matter. Expressing an earnest desire to promote inter-Imperial trade, he did not believe in rapid effects so far as the Dominions were concerned. He appears to have very substantial hopes, however, regarding India. Mr. Snowden argued that "British trade with India could be increased by £87 millions compared to £2 millions with Australia if the purchasing power of the people of the two countries was raised, say by 6s. per capita." His calculation is perfectly accurate on the basis of figures, and an increase of purchasing power will be most heartily welcomed in this country. But how is that to be achieved? Mr. Snowden has a simple remedy ready at hand, and that is to help India by lending her capital, enabling the peasants to use steel instead of wooden ploughs and also motor tractors. Why, Indian peasants can be educated, in time, even

to use motor cars! Will not this simple method of dealing with the problem benefit the British manufacturer and the Indian ryot at one and the same time? It looks queer that such a brilliant idea should not have occurred to any one before!

It is arguable that the policy adumbrated by the Chancellor of the Exchequer may be the best suited to the national requirements of Great Britain, and Liberal and Labourite thinkers are probably right in the view they take of their country's economic policy. But Mr. Snowden's pronouncement is bound to provoke a smile of amusement in India, both in official and non-official circles, and his argument hardly needs examination. But the more important question relates to the future of the policy of protection which has already been adopted in this country. Mr. Snowden foreshadowed the calling of an Imperial economic conference for the purpose of seeing how inter-Imperial trade might be extended. Mr. Runciman blessed this idea and wished that there was enough wisdom in the Dominions to induce them to adopt free trade. India has secured, by conventional understanding if not by constitutional law, the right to determine her own commercial policy, and this freedom is not likely to be curtailed in the constitutional changes that are being discussed at the present moment. Indian public opinion will, therefore, have to be convinced of the desirability of the adoption of a free trade policy before any interference with the existing system from without, can be tolerated, and in the present state of economic development and thought in this country and abroad, it will take a good deal of convincing. Protection is Labour's pet aversion, but whatever success Mr. Snowden may have in his campaign against it at home, the problem is not so simple in India as he and his Liberal supporters seem to think. And so far as India is concerned, the proposed Imperial Economic Conference is not likely to bring us nearer a solution in the manner expected. India's fiscal policy will have to be discussed (and regulated) on its own merits and from the practical as well as the theoretical point of view.

The echoes of the exchange ratio controversy are still occasionally heard in certain parts of the country, but in spite of the merits of the question, general opinion appears to have resigned itself to the inevitable, and an attempt to revive the disputation is, in the circumstances, regarded as flogging a dead horse. It is, of course, interesting and important to find out how far the assumptions and the anticipations of the Hilton-Young Commission were justified in the light of the events of the period succeeding the adoption of its recommendations. Apart from this larger aspect of the problem, however, there are a few questions relating to Indian exchange and currency which have quite recently come into prominence. A question was asked the other day in the House of Commons as to why the system of purchasing sterling remittances by tender, so long followed by the Government of India was abandoned, and the answer given was to the effect that the new method of purchase *via* the Imperial Bank on behalf of the Government of India, was calculated to prove more advantageous. The second question has reference to the sales of silver effected in London by Government, against which the Indian Chamber of Commerce, Calcutta, has entered a strong protest. The complaint is that the sales are unnecessary, as being only a part of the Hilton-Young scheme of currency reform and that they have caused heavy losses to the country and to the mass of the population, in particular, having brought about a reduction in the value of their holdings of the white metal. The third question relates to the prevailing weakness of exchange and the contraction of the currency Government has resorted to by the transfer of £3 millions from the currency reserve to the home treasury. All these measures are interrelated; and while they are represented, on the one hand, as the direct and inevitable consequences of the foolish exchange ratio policy of Government, on the other, they are explained away as natural phenomena. With the advent of the slack season, the supply of sterling is inadequate, exchange is weak and the Government of India must deflate and resort to different shifts to keep the Secretary of State

for India in funds. It stands to reason that with a lower exchange ratio, *e.g.*, 16d., the position would undoubtedly have been much easier. The situation certainly lends colour to the plea that the exchange has been legally put higher than the needs of the country warranted and that the Government and the country have to suffer the consequences, though with any ratio, such developments might have temporarily occurred and could not have been prevented.

The Banking enquiry which has now been launched on its difficult voyage, is an adventure of great importance and ought to be productive of infinite good to the country. Rural indebtedness, the alleged extravagance of the masses, the need of inculcating thrift in them, the fabled hoards of India, the existing admitted lack of banking facilities, the effects of the co-operative movement on popular credit, all these matters require clearing up and the procedure of provincial and intensive local enquiries along with the investigation and co-ordination by a central committee, has properly met with general approval. The only complaint one hears (and it appears to be based on substantial grounds), is about the unwieldy character of the central committee. This is surely not a conference of delegates of different interests, and being a body more or less of experts in different branches of banking, ought to have been smaller. One hesitates to forecast its achievements. In any event, one must wish the whole inquiry complete success.

V. G. K.

LABOUR

We had very much hoped that we had well got over the period of Strikes and Lock-outs that seemed to have become endemic within our industrial system. Regretfully we have to record that our hopes have been too rudely and too frequently destroyed. Not only in Bombay, the plague-spot of this malady, but up and down the country, one reads of industrial friction, disputes and stoppages of work. Apart from alleged communist propaganda—and there may be some substantial basis for this allegation—there are some outstanding causes that need careful treatment. These causes, *viz.*, questions of recruitment, promotion, dismissal, wages, leave and holidays, and even of control and discipline, housing and other major matters, have been legitimate grievances for long.

We plead for and urge the adoption of a means and a channel by which these evils can be systematically attacked. Causes for friction and trouble are bound to crop up. The industrial system is not static, it is dynamic. It also suffers from a bad inheritance. We therefore cannot hope to cure it of all defects and shortcomings once and for all. What we need then is a well-recognized method—adjusted carefully to the prevailing conditions of each industry or trade—by means of which the causes of friction can be promptly and methodically sifted and examined before they come to a head. Such examination must be full and free and must be a co-operative and mutual effort from the side of the Management and of employees. In other countries and in certain instances in India too where this practice has grown up, it has yielded satisfactory results.

The Bombay Mill Strike which came as a flash of lightning towards the end of April almost completely paralysed the Textile industry in Bombay. A few more strokes of this nature and the death of the premier industry is certain. Its repercussions on the industrial life of the country as a whole would be far-reaching and would spell disaster. The country can ill-afford to view such a calamity with calm.

The points for which the Girnikamgar Union—or the Red Flag Union as it has now come to be known—seem to stand out are the reinstatement of the 8,000 strikers of the Wadia group of mills; no victimisation; the recognition of mill committees as legitimate media through which the workers should place their grievances before the Management; and the concession of the right to the Union to carry on its work within the mill premises, like the collection of subscriptions on behalf of the Union, etc.

After several earnest but futile attempts made by Government to amicably settle the dispute, the employers proving no less obstinate than the employees, the case was brought under the Trades Disputes Act, and it is now being investigated.

The terms of reference of the Court of Inquiry are:

- (1) To ascertain the extent and nature of the dispute or disputes between employers and workmen which led to the strikes of March and April, 1929;
- (2) If there was any such dispute, to what extent employers, or workmen, or both are responsible in matters connected therewith;
- (3) What are the causes of prolongation of the strike? Who are responsible for such a prolongation and to what extent?
- (4) What are the difficulties in the way of a settlement of the dispute or disputes between employers and workmen?

The All-India Railwaymen's Federation, led by Mr. V. V. Giri, met Sir George Rainy, the Railway Member of the Government of India, to place before the Government some of the outstanding grievances of the Railway employees. The deputation was representative of many Railways in the country.

Some of the questions discussed included the matter of wages; insecurity of service; victimisation; leave; hours of work; recognition of Trade Unions; fines and debits. The demands of the deputation were classified into major, minor and subsidiary.

Under major matters were included questions of wages, insecurity of service and hours of work.

With regard to wages it was stated that the wages of the subordinate railway employees were most inadequate. Also that employees were barred at the maximum for several years together. Another grievance was a differentiation made in pay due to differentiation in designation though the work done was precisely the same. Also there was no standardization of working conditions.

Time scale of pay was advocated as it would do away with a great deal of injustice and favouritism in promotion. Scales of pay would have to be worked out for the different grades of workers.

Classification of employees was very necessary; and a ready classification of unskilled, semi-skilled, skilled, clerical (ordinary) and semi-technical could be adopted. Those who were to be included in these various categories were then defined. Scale of wages was suggested for these groups. The unskilled worker's grade was for instance to be Rs. 25-1-45 and clerical (ordinary) Rs. 50-5-175.

Overtime payment was demanded for all grades of workers. Sunday and other holidays were requested, but in the event of this being impossible, even the grant of one day off in seven, it was suggested that in lieu holiday allowance at least should be paid. A leave reserve of 20 p.c. was suggested.

The practice of keeping men in temporary employment for 5 and even 12 years was, as it is only right, severely criticized. It was suggested that every employee after 2 years' service should be made permanent.

It was pointed out that the question of fines and debits was a widespread cause of grievance. One of the suggestions made in this connection was that the fines should not exceed 2 p.c. of the monthly salary.

Sir George Rainy gave a sympathetic hearing and said that the memorandum of the deputation covered a very wide field. On

an analysis of the memorandum he found that it covered no less than 24 separate subjects and one of which had six sub-heads. He informed the deputation that he had started a thorough and close enquiry into several of these questions and could not at the moment anticipate conclusions or recommendations. There were only four points which were presented in the memorandum which would not be covered by these departmental enquiries. These were the proposals for the establishment of a Wages Board; racial discrimination; Victimisation and Trade Union recognition. Some of these he had no doubt would be taken up by the Royal Commission on Labour. He then mentioned what improvements had already been made and what difficulties there were in the way to further betterment, especially in the matter of wages. He showed how during the last four years expenditure on medical relief had gone up from Rs. 36 lakhs to Rs. 45 lakhs a year, an increase of 25 p.c., and would be increased still more. The question of housing also had received the attention of the Government, and during the last six years they had spent Rs. 5½ crores on improving the housing of the subordinate employees and by March 31, 1930, the amount so spent will have exceeded Rs. 7 crores. *Re* the problem of dismissal he said that mere length of service in itself did not establish an absolute claim upon the railway administration although due weight would be attached to it. He felt that the power of discharge or dismissal should be with senior officers only, and that an appeal against such order to the appellate authority should be examined carefully and not be treated as a mere formality.

Amongst other things Sir George Rainy said that the Federation was not truly representative, although he admitted that they had no reason to be dissatisfied with their achievement. We cannot help feeling that this was rather a weak argument to rely upon for the defence of several things in the Railway administration which admittedly need improvement.

In comment we can only say that in the railway service everywhere, but especially in a country like ours of great distances and of few alternative means of communication, we need to keep the

men not only satisfied and contented, but also educated and alive to the vital services they are rendering the community. A breakdown of the railway service, or constant friction, would not only react most unfavourably on the entire economic system of the country, but would also have serious anti-social consequences upon the stability and well-being of the community as a whole. The men must be decently paid, properly educated and trained, and at the same time the cost of service must be kept low and its efficiency high. To achieve these objectives is no easy task. We therefore feel that apart from the spirit with which Railway labour leaders on the one hand, and Railway Agents and officers on the other enter into their respective duties, there must be set up adequate and representative machinery, which will keep those in charge in progressive touch with the day-to-day problems and difficulties that inevitably arise in a vast and complicated industry like the Railways. Unless and until we set up representative machinery for mutual consultation and reference, with recognized status and standing, to examine and sift the various problems that must arise, we shall not have solved the underlying difficulty in connection with labour in this or in any other industry in this country. We seriously urge upon the Agents of the various Railways in the country, if not the Railway Board—we put the matter thus, because Sir George Rainy's reply to the Federation showed considerable doubt as to who, the Agents or the Railway Board, were the real masters of the situation—to consider this matter really seriously before they turn it down as too radical.

It was significant to read that the Ahmedabad Labour Union, which has throughout been distinguished for its sane and business-like methods, had given notice of a strike if satisfactory arrangements were not made for drinking-water and dining-sheds. They also demanded a Joint Committee of the Labour Union and the Millowner's Association for these matters. One learns with regret that the Secretary of the Millowner's Association, while assuring the Union of looking into the alleged grievances, declin-

ed to entertain the idea of having a Joint Committee. It was urged that crèche and other welfare activities had been run quite successfully for the past three years without the aid of such committees, and there seemed no good reason to start one now.

We hope, however, that the idea of a Joint Committee for at least such matters as requested by the Ahmedabad Labour Union will commend itself to the Millowners' Association on further reflection. Joint discussion is the only solvent of these obstinate Labour troubles.

It is the sign of the times which we were glad to note in the deliberations of the Bengal Labour Conference held in Calcutta that the institution of an Industrial Labour Council to promote peace in industry was its chief objective. Bengal too has had its serious Labour troubles and so this step to discover ways and means by which to promote peace in industry is one in the right direction. Too much thought and energy cannot be given to this matter both by our Labour Leaders and our Captains of industry. The public too is vitally affected and would lend its powerful support to all such proposals.

The International Industrial Relations Association—its older name being the International Association of Human Relations and Conditions in Industry—has held its first Triennial Congress at Cambridge. The fundamental idea of the I. I. R. A. is that it is not sufficient to take the narrow view of the industrialist who merely wishes to increase production or the hazy view of the sentimentalist who would ignore production and economic realities. It is alleged that man is as real as machinery and machinery as real as man. Adjustment is necessary, but what is needed is intelligent adjustment which will involve the understanding and mastery of economic forces to serve the world of men and women. And the plan adopted is to unite men and women of all countries, who are concerned with industry in any capacity, to bring them

together to pool their experiences and opinions, and by way of arguments and discussions to arrive at some solutions.

The first volume of the Report consists of Papers showing the way in which fundamental relationships in industry are being affected by co-operation within and between various groups in industry; education and training for all groups; personnel and employment management; scientific management and vocational guidance. These discussions were held by practical industrialists, employers and heads of companies, workmen and Trade Union representatives, industrial thinkers, psychologists and welfare workers from twenty different countries. The Congress was deliberative—not executive. In a word, its conclusion was that industry in these days could no longer be conducted on the rule of thumb idea. It had to be more scientific, intelligent and humanistic. This organization holds within it much power for useful and helpful enlightenment for those whose concern it is to deal with industry and labour.

We unreservedly welcome the appointment of the Royal Commission on Labour under the Chairmanship of the Rt. Hon. J. H. Whitley. The Commission has come at an opportune moment. Although our industrial system is of an earlier date than our Labour movement, but comparatively speaking it is still in its infancy. In all human institutions tradition plays an important part and our industrial system can prove no exception to this. Therefore before bad tradition can set into embittered hostility and suspicion between employers and employees and leave its legacy of friction and strife to the detriment of the efficiency of our industrial development, we are glad to have a thorough and searching examination of the entire field by the Royal Commission. The Chairman is a person of acknowledged reputation and his ability to do justice to the task laid upon him is beyond all doubt. He is to be supported by a body of well-selected men whose knowledge of affairs in general and of the specific problems in particular is considerable. While

we are glad to see that a lady has also been placed upon the Commission, we cannot but express the regret that no Indian lady could be found to join the Commission as well. We are not moved by sentiment alone in this matter. We feel that an Indian lady would have proved of invaluable help to the Commission as a whole, and especially to the lady member. The two together could have supplemented each other's investigations a great deal.

We take this opportunity to express the hope that the labour situation in the country will be fully and freely examined from all sides, and that in spite of the many troubles that we have recently passed through, the Commissioners will approach their great task with unbiased and unprejudiced minds.

We are glad also to record that while the Executive Committee of the Trade Union Congress have declined to appear before the Commission, they have not forbidden individual Trade Unions and their office-bearers to do so if they should so desire. Politics apart, we cannot see how the lot of the labourers, or the fortunes of our industries would be bettered by a policy of non-co-operation.

The terms of reference are general and are comprehensive in their scope. It is just as well that they were not more specific. This will be better done in the Questionnaire that the Commission will issue. The terms of reference are: "To inquire into and report on the existing conditions of labour in industrial undertakings and plantations in British India, on the health, efficiency and the standard of living of the workers and on the relations between the employers and the employed and to make recommendations."

The Commission will consist of the following: Chairman, the Rt. Hon. J. H. Whitley. Members: The Rt. Hon. Srinivasa Sastri; Sir Alexander Murray; Sir Ibrahim Rahimtullah; Sir Victor Sassoon; Messrs. N. M. Joshi, M.L.A.; A. C. Clow, I.C.S.; G. D. Birla, M.L.A.; Diwan Chaman Lal, M.L.A.; Kabeeruddin Ahmed, M.L.A.; John Cluff (Asst. Genl. Secretary, Transport and Railway Workers' Union, England); Miss Beryl M. U. Poer Power, Deputy Chief Inspector, Trade Boards, England.

Mr. S. Lal, I.C.S., Dept. of Industries and Labours, Govt. of India, and Mr. A. Dibdin, India Office, will act as Joint Secretaries to the Commission.

The Indian Branch of the International Labour Office has taken up the cause of Indian seamen in right earnest and is collecting data and information regarding their welfare.

The thirteenth session of the International Labour Conference to be held next October will be devoted entirely to the discussion of maritime labour conditions.

The Agenda contains the following items:

- (1) The international regulation of hours of work on board the ships;
- (2) The protection of seamen in case of sickness (including the treatment of seamen injured on board the ship);
- (3) The promotion of seamen's welfare in ports; and
- (4) The establishment by each maritime country of the minimum of professional competency exigible from captains navigating and engineering officers in charge of watches on board merchant-ships.

The question of seamen's welfare in ports is another matter which the Conference is going to seriously consider and endeavour to improve. The problem has already been well-considered from its many aspects by a sub-committee of the Joint Maritime Commission of April, 1925.

The Committee propose the following lines of reforms:—

- (1) The appointment in all large seaports of a Committee consisting of the representatives of ship-owners and seamen to investigate in co-operation with the public authorities the conditions prevailing in the harbours and adjacent areas;
- (2) The establishment of a definite closing time for all places where strong drinks are served in or near

harbours. It is recommended that the closing hour should not be later than 10 p.m.;

- (3) The prohibition of the unlicensed sale and use of the narcotics and heavy punishment for transgression against the law;
- (4) A reduction of the number of taverns in or near dock areas;
- (5) The prohibition of the employment of female attendants in taverns and lodgings of seamen. The board and lodging houses are recommended to be under strict licensing laws;
- (6) A strict medical control of women who have illicit intercourse with men. The transmission of venereal diseases, it is suggested, should be a punishable offence. The adoption of prophylactic measures against venereal diseases is also recommended;
- (7) The prohibition of the boarding of ships by pedlars and other unauthorised persons;
- (8) The control of boatmen plying in the harbour;
- (9) The maintenance of a reliable police force in the harbour and adjacent areas;
- (10) Adequate lighting arrangements in docks and other areas where ships are moored;
- (11) The removal of loafers and beach-combers; and
- (12) The supervision of private employment agencies.

We hope that many of these things will be done for the protection and welfare of the seamen. It would not be easy to estimate what world trade and commerce owes to these toilers of the deep. Their lot is one of the hardest. Separated and parted as they are from their home-life at a tender age, they little enjoy domestic bliss which makes the life of even the hardest-worked landsman

endurable. So anything that can be done to make their conditions more humane should be welcomed and assisted by all, especially by the home-abiding citizen.

The All-India Telegraph Workers' Union held their Annual General Meeting at Lahore under the Presidentship of Diwan Chaman Lal. They passed a resolution, amongst other things, urging the grant to workers of the city a rent allowance; cycle allowance; sun-glasses for summer; rain-proof coats and umbrellas for the rainy season; abolition of the system of bracketting telegrams and not paying for them when addressees are not found.

The Twelfth International Labour Conference began on May 30, 1929, at Geneva. Doctor Brauns, a former German Minister for Labour, was elected president. Out of 55 member-states, 50 sent delegations, the largest that ever attended since the inception of the International Labour Office.

The agenda included questions on Forced Labour and hours of work of salaried employees. The Conference also considered the I.L.O. report on unemployment. The problems of industrial accidents and protection against accidents of workers engaged in loading or unloading ships formed important items on the agenda.

We have received the following correspondence from America and we publish it in good faith and with pleasure. The unemployment problem of the educated classes in most Provinces in India has reached an acute stage. Anything therefore that indicates fresh avenues of employment is welcomed warmly. We are grateful to the India Lecture Bureau, U. S. A., for pointing to a new source of relief.

S. K. R.

INDIA LECTURE BUREAU

ARTS—SCIENCE—LETTERS

Indian Journal of Economics,
Allahabad, India.

Management: James M. G. Fay
343 West 43rd Street
New York City
May 14th, 1929.

Gentlemen,

We enclose a few articles that we would thank you to publish. It will be a pleasure for us to send you more material regularly thru our I.L.B. Press Service.

We would also value the service of your paper and, if you can assist in that respect, from other Indian Trade publications. We need these very much in our work of creating trade relations between our two countries, in order to bring about friendlier relations between America and India, relations that commerce only can establish.

Should you wish to obtain American articles on special subjects we will be glad to assist you in every way in this respect.

Our Trade and Commerce Service supplies free information to all who wish to establish trade connections between the United States and India.

Thanking you sincerely for whatever you may possibly be able to do for us, we beg to remain,

Sincerely yours,

JAMES M. G. FAY,
India Lecture Bureau.

INDIAN GRADUATES AND AMERICA

New Industries are now springing up everywhere thruout India. Many manufacturers are however in need of sources for appropriate machinery, some need capital and others need buyers in foreign lands for their finished wares. The American Chambers of Commerce in general gives considerable assistance in this respect, for the asking, and in India such information is obtainable from the American Consulates and Trade Commissioners, also from American Banks and Navigation Companies and from Japanese steamship lines having a service to America.

On an another hand many college graduates would like to come to America, really they do not know how to proceed, or they have not the means to do so. Yet it is possible for them, if only they go to it in the right way. And this way is simple. There is plenty of room in American industry for such students who wish to perfect themselves by completing their studies in American factories, industrial plants and laboratories. They can then return to India either as the representatives of the concerns for which they have come or to establish branch factories or mounting plants for them all over India.

To achieve this purpose these graduates should address the following organisations, not separately but all of them. They will find then many obstacles taken away from their path and their road to success made very much easier.

1. The National Association of Manufacturers, New York City.
2. The Pennsylvania Association of Manufacturers, Philadelphia, Pa.
3. The Philadelphia Commercial Museum, Philadelphia, Pa.
4. The Detroit Chamber of Commerce, Detroit, Michigan.
5. The Hindusthan Association of America, 500 Riverside Drive, New York City.
6. The India Lecture Bureau, 343 West 43rd Street, New York City.

In writing to these organisations let them state their desire to enter as students with American concerns as stated previously. Let their explanations be truthful, not exaggerated and coloured. The simple facts will in the end prove best.

In the meantime such student-graduates would do well to write articles on the subjects they master and send those articles to the American trade press. Such articles should be creative and constructive, showing new possibilities for Swadeshi industries, for the establishment of plants financed by Americans, for the development of Indian natural and mineral resources for the home trade of India first, and for export to other Oriental countries and the rest of the world second. There are plenty of opportunities to be developed in India and plenty of graduates who now vegetate whereas with American co-operation they might become prosperous and influential men in the Indian community. These men should not neglect the advantages offered them. Now that India is rapidly coming to the fore, is the time for action. Meanwhile businessmen of India who would like more information than that supplied by the organisations already mentioned for them can also address the organisations mentioned for students. Besides they can easily get in touch with the Chambers of Commerce in the following cities, the more they write to the better it will eventually be for them.

These Chambers of Commerce are in Boston, Mass.; Worcester, Mass.; Macon, Ga.; Providence, R. I.; Bridgeport, Conn.; Wilkes-Barre, Pa.; Baltimore, Md.; Birmingham, Ala.; San Antonio, Texas; also the Manufacturers' Association in San Antonio, Texas.

The new industrialist in India must not consider it a drawback to start on a small scale as he will soon find banks to assist him when they find that he has really useful merchandise to produce. Meanwhile he should not neglect to take advantage of the aid offered him by organisations of the Occident.

INDIAN SCIENTIST TO ESTABLISH NEW INDUSTRY IN CALCUTTA

Mr. Nripendra Nath Roy, a native of Dacca, has just left this country. He is now on his way to Calcutta where he is to establish the Indo-Burman Chromium Plating Company.

A graduate of Calcutta University, where he got his B.Sc., he then studied chemistry in Dacca University. From there he went to the Technische Hochschule in Charlottenburg where he took up German and Engineering. Later we find him securing his B.S. in chemical engineering at the University of Michigan. His prominence was such that the General Motors Company immediately secured him to do experimental work in heat treating and he was also attached to their research laboratory where he has distinguished himself in the perfection of electro deposition of metals.

He now leaves America as one of the leading personalities in his field to establish a new Industry in India. This is all the more remarkable when it is considered that very few countries in the world have similar plants. Before leaving Mr. Roy was the guest of his friends at the India Lecture Bureau and many saw him off when he sailed as a pioneer of science for his Motherland. Among friends to see him at the pier were Messrs. Shomi Nath Shastry, Nirmal A. Das and U. S. Banerje.

American metallurgical engineering loses an important leader in Mr. Roy.

We have pleasure in publishing hereunder a letter together with a note entitled "The late Sir Ganga Ram's Generosity" received from the Director of Agriculture, Punjab;—

No. 1/72-178. KW. II.

From

D. MILNE, Esq., B.Sc. (Agri.), C.I.E., I.A.S.,

Director of Agriculture, Punjab.

To

The Managing Editor,

Indian Journal of Economics,

Allahabad.

Dated Lahore, the 6th May, 1929.

Sir,

I have the honour to forward herewith a note entitled "The late Sir Ganga Ram's Generosity" in connection with 'Maynard Ganga Ram Prize' for the encouragement of development of agriculture in the Punjab and shall be grateful if you will kindly find space for its publication as a news item in the pages of your esteemed journal. I trust you will be able to see your way to extend this courtesy and thus help the cause of agriculture in India and contribute your share to this laudable object by the gratis publication of this note.

I have, etc., etc.,

(Sd.) KURTUKISHAN,

P.A. for Director of Agriculture, Punjab.

THE LATE SIR GANGA RAM'S GENEROSITY

In 1925 the late Sir Ganga Ram, Kt., C.I.E., M.V.O., R.B., Lahore, with that generosity for which he is now so well known, handed over to the Punjab Government a sum of Rs. 25,000 for the endowment of a prize to be awarded for a discovery, or an invention, or a new practical method which will tend to increase agricultural production in the Punjab on a paying basis. The property has been vested in the Treasurer of Charitable Endowment for the Punjab and is administered by a Managing Committee.

The interest accruing from the property is payable to the Managing Committee.

The prize is known as the Maynard Ganga Ram Prize and is to be awarded every three years provided a satisfactory achievement is reported to the Managing Committee. It will be of the value of Rs. 3,000 and the competition is open to all throughout the world. Government servants are also eligible to compete for it.

Wide publicity was given in 1926 and 1927 to the proposed award by advertisements in newspapers both in India and abroad, and by other means, and applications were invited by the 1st January, 1929. The response has, however, been extremely poor and consequently it has been decided to extend the time for submission of the applications to the Director of Agriculture, Punjab, up to 31st December, 1929. The Managing Committee reserves the right of withholding or postponing the prize if no achievement of sufficient merit is submitted.

The Punjab with its many rivers, its fertile soil and warm sun, has great possibilities for agricultural development, which is of the utmost importance as practically the whole population of the province, both urban and rural, depend either directly or indirectly on its agriculture.

I. REVIEWS OF BOOKS

A REJOINDER TO PROF. D. G. KARVE

Prof. D. G. Karve has done us the honour of reviewing the first volume of our recent work on Indian Economics in the pages of the *Indian Journal of Economics*, Allahabad. He seems, however, to have written under the stress of strong feeling apparently caused by reading certain remarks of ours in the Preface, and throughout the review he deals out a steady stream of wholesale and indiscriminate condemnation. The head and front of our offending seems to have been our "remarkably bold criticism of the existing books on Indian Economics." Seeing that Prof. Karve himself has not written any book coming within the scope of "the bold criticism," we cannot help admiring his capacity for vicarious indignation, though we wish that in giving expression to this indignation, he had not taken leave of all sense of fairplay and fair dealing. He suggests that our criticism is directed against all existing books, which of course is not literally true, as a glance at the Preface will show. But this is a minor point. As regards the actual defects we have noted as characterising much of the current literature on the subject of Indian Economics, we cannot see that there was anything very wrong in our mentioning them and warning ourselves against them. Prof. Karve ought to know that similar, if not identical, complaints have been made by other people before us, and we have repeated them because we are honestly persuaded that they are on the whole well-grounded. In declaring our intention to make a sincere attempt to avoid certain common faults we have seemed to Prof. Karve to display "an enviable self-confidence." But Prof. Karve, at any rate, need not envy us at our supposed self-confidence, as his natural endowment in this respect is quite above the ordinary. For has he not told us with engaging candour in the Introduction to a Marathi book on Political Economy, of which he is a joint author with another more eminent economist, that in writing it he has equalled if not surpassed standard treatises written by Western Masters? And he makes this interesting confession in spite of the fact that he has not succeeded in coming within anything like a measurable distance of his avowed goal. But coming back to our point, we do think that writers on Indian Economics need to be particularly careful not to allow themselves to slip into sheer journalese. Methods which may be appropriate to controversies agitated in the political arena are not permissible in books professing to be scientific. Prof. Karve notices "a lack of critical and decisive faculty" as an obvious feature of the discussion of many of the topics treated in our book. After all, may this not be his friendly way of recognising that in dealing with all controversial matters we have stated the different views with scrupulous fairness before expressing our own opinion on them. Such an attitude,

while it is often impossible to the practical politician, must be maintained at all costs by the scientific student. This is all we mean when we plead that, as far as possible, economics should be kept separate from politics. We cannot, therefore, follow Prof. Karve when he charges us with inconsistency on the ground that, in discussing the various disadvantages of the caste system, we allude to its baneful effects in creating and emphasising political disunity. In the name of common sense why should we not? Prof. Karve thinks that we have sacrificed consistency of standpoint in a number of other cases. But since he merely asserts without proving this, we feel we are entitled to make the counter-assertion that he is utterly in the wrong as usual. Similarly, when he enumerates a large number of topics discussed in the book and airily disposes of them by the simple remark that their treatment is "very disappointing" or "far from satisfactory," we must reply with all due deference that his opinion has no value at all unless he supports it by argument. Prof. Karve refers to certain portions of the book as deserving the title of "padding complements." On a matter like this, however, no two people will quite agree. Of a given number of topics all of which are strictly speaking relevant to the subject-matter, which of them should be included and which left out, and, in the case of those that are included, how much space should be given to each, are questions which not everybody will decide in precisely the same manner. But we hold that none of the sections which Prof. Karve objects to as "padding complements" are irrelevant or out of place, and that they have a far better claim to be included in a book on Indian Economics than, e.g., the formal disquisitions with which some authors have thought it necessary to preface each chapter rendering the treatment both of economic principles and Indian Economics proper, inadequate and unsatisfactory. According to Prof. Karve, while in some cases we have erred on the side of excess, in others we have committed the opposite mistake. He states, for instance, that the "commendable copiousness with which problems of agriculture and population have been treated has been achieved at the expense of other subjects equally important." In a personal discussion we had some months ago with Prof. Karve, it came out that this remark of his was due to his impression that the last chapter in Volume I exhausted our whole treatment of Indian industrial problems. There was really no excuse for this impression as we had already indicated, at the end of the first chapter, the different topics we proposed to treat in the book, and this should have enabled him to conclude that what he missed in the first volume was going to come in the second. In any case, we distinctly remember having called his attention to the fact that considerable space had been devoted to industries and other topics in the second volume. It is, therefore, surprising that he failed to correct the error in his original statement, though this course was actually suggested to him by us. The inference from this is clear. Prof. Karve was not prepared to surrender a single count in the comprehensive indictment which he had already framed against us and he was simply not going to be bothered by conscientious scruples of any kind.

We cannot excuse ourselves as readily as Prof. Karve does in the generosity

of his heart, for the unduly large number of typographical errors in the book though we can only assure our readers that the greatest possible care will be taken if we reach a second edition. We fancy, however, that Prof. Karve is almost excessively indulgent about the misprints because he wants to be very severe on the English style of the book, which, he says, is "extraordinarily clumsy in a number of places." He also thinks that a number of phrases and constructions used throughout the book are of doubtful correctness and, contrary to his usual practice, he is in this case so indiscreet as to give some actual instances. Considering the great love he bears us, we may be quite sure that these instances are the worst he could find in the whole volume. As regards two of them, *viz.*, p. 13, lines 10—14, and page 308, last sentence in Section 1, the sentences as they stand are not "of doubtful correctness" but of undoubted incorrectness. The mistakes however are obviously due to oversight. In the first the word 'although' ought to have been deleted. In the second, if Prof. Karve had happened to know the word "inhibit" he would have read it for "exhibit." As regards the other instances, we hold against Prof. Karve that there is nothing incorrect about them. Since he takes it upon himself to criticise the style of the book, we may be pardoned for inquiring whether he really knows anything much about it himself. We have known Prof. Karve for some time as an occasional writer of mediocre reviews. But whatever we may think of him as an economist, we certainly cannot regard him as an authority on English style. He cannot excuse us a few slips in a volume of 500 pages, though in his own review of our book covering about five pages he is guilty of several more or less serious offences against the English idiom. Take the very third sentence which reads: "The particular books purporting to deal with the economic problems of India from a comprehensive and national standpoint have a special claim upon our attention, as it is in these that a proper understanding and correct solution of Indian problems may be hopefully traced." We cannot commend this sentence either as a model of graceful writing or of perspicuity. And then, why should we want to "trace"—hopefully or otherwise—anybody's understanding—proper or improper? We could easily quote other instances of doubtful English from Prof. Karve's review. It is, however, ridiculous for Indian Professors of Economics to be telling off each other's defects of English style in the columns of a journal devoted to economic problems, and we do not propose to enter into any further argument with Prof. Karve on this matter. To be able to write in English with any real distinction is the rarest of rare accomplishments, and there are very few Indians who can boast of it. As for ourselves, we certainly lay no claims to it whatsoever. But it may interest Prof. Karve to know that such of our other critics as have at all cared to refer to the style of the book have done so in terms complimentary rather than otherwise. Might we not, therefore, conclude that the style is at any rate not so unusually defective as to call for special comment?

Among the many faults which Prof. Karve finds in our book the most fundamental is that we have no clear or real perception of the nature and justification of a special study of Indian Economics. We feel confident, however, that any

unprejudiced reader of the first chapter, or even the first section of the first chapter, will acquit us of this charge. We think that it is a sufficiently clear definition of Indian Economics to say that it is a study of the facts and problems of Indian economic life from the national point of view. Phrases like "peculiarly Indian standpoint" and "intensely national standpoint," which Prof. Karve fancies so much, do not seem to us to add anything to the definition. Similarly we may remark that though Prof. Karve has a good deal to say about what constitutes Indian economic creed, what he says is all so obvious that it might very well be taken for granted. "The aim of those who follow the Indian economic creed," says Prof. Karve, "is to promote the proportionate and intensive social and economic progress of India." We do not quite know what "proportionate progress" may possibly mean, but since it is obviously the central dream of Prof. Karve's soul, we may be sure that it is something highly desirable. "The essence of Indian economic creed," Prof. Karve tells us, "is that those who follow it do not tie themselves to the apron-strings of one or the other school of economics. All theories of economics and all social policies whether in the East or in the West will be studied by them, and the Indian economic situation will be examined in their light with a view to appraise economic policies as suitable or otherwise to promote the aim of national progress." All this sounds very independent and spirited. But we hope that it does not absolve the student of Indian Economics from the obligation of reaching definite conclusions of his own on questions of economic theory and policy—conclusions which, it is important to note, may vary from person to person. In other words, we presume that "the Indian economic creed" does not require of its followers that they should subscribe to certain fixed dogmas and certain prescribed views on various questions of economic policy. At all events we fail to see how the admirable attitude enjoyed on students of Indian Economics by Prof. Karve can be regarded as in any sense peculiar to them. To desire the all-sided progress of one's country along sound lines; and as a means of being able to direct it properly, to study the different economic theories and practices in other countries while maintaining complete independence of judgment; to be alive to the necessity of "objective observation" of Indian conditions before recommending any practical steps in mere imitation of other countries—all these are excellent maxims which patriotic persons all over the world, concerned about the economic welfare of their country—and not Indians alone—will do well to remember. Nor can we say that respect for what Prof. Karve calls "the peculiar teaching of the Historical School" constitutes a differentiating characteristic of Indian Economics. The teaching of the Historical School is not the exclusive property of those concerned with Indian Economics. It is part of the common heritage of all mankind, and economists in all countries must reckon with it and are at liberty to profit by it. Having regard to all these considerations we cannot help feeling that the inflated wordiness of Prof. Karve's description of the aims and objects of Indian Economics is a conscious or subconscious attempt to give the appearance of discoveries to what are really well-worn platitudes.

As regards the use of the term "Indian Economics" we believe we have justified it as strongly as anybody else. Prof. Karve says that in the foot-note on page 2 we seem almost to apologise for its use. Most other people would say that the foot-note in question is, if anything, aggressive rather than apologetic.

Prof. Karve doubts the logical and utilitarian justification of our arrangement of the subject-matter. Now this is not such a vitally important matter as Prof. Karve imagines, because in our treatment of Indian Economics we have presupposed a knowledge of economic principles on the part of the student. Moreover the sequence of subjects as stated by us at the end of Chapter I sounds logical enough for all purposes. We have seen the plan adopted some books at grouping the topics of Indian Economics under the headings of Production, Distribution, Exchange, etc., taken in the usual text-book order adopted in text-books. But in our judgment the result is not satisfactory from the point of view of the student. It does not prevent overlapping, nor does it avoid the discussion of comparatively difficult subjects at an inconveniently early stage. In this matter we have preferred to follow more or less closely the order of treatment indicated in the B.A. Honours curriculum of the Bombay University.

Another very sore point with Prof. Karve is our supposed lack of appreciation of the great services rendered by Ranade to the country. This is again a preposterous charge for which there is absolutely no foundation. We yield to none in our admiration for Ranade, and we think that, taken all in all, he still remains by far the greatest economist this country has produced. We have paid unstinted tribute to him for his valuable services to the country, particularly for his vigorous protest against the indiscriminate application of Western economic theory to Indian conditions. We have indeed remarked that contemplating Ranade's words at this distance of time he appears to have been "partly responsible for giving currency to the notion that Western economic theory is utterly useless for interpreting economic phenomena in India and indicating methods of economic progress." But we observe almost in the same breath that Ranade's overstatement of his case was probably necessary "for purposes of practical emphasis and effectiveness." We go on to point out that his protest was much needed and abundantly justified in the circumstances of the time, and that "in his generation he performed for his country the same kind of service that List did for Germany." But the question is whether Ranade's words continue to apply with the same force today as they did when they were uttered. We think they do not, and hence our remark—which has apparently annoyed Prof. Karve so much—that Ranade "set the fashion in this matter which has continued much beyond its proper time." It was an excellent fashion in its own day, but it has outlasted beyond its proper time. We fail to see how this observation is disrespectful to Ranade. Prof. Karve seems to think that a fashion necessarily means an objectionable fashion, and the mistake is probably due to the fact that such an implication is generally present when the word is used in Marathi. We may say, therefore, that the trouble has arisen in the present instance because Prof. Karve knows Marathi too well and does not know English well enough. In a thundering

sentence, which almost takes our breath away, he delivers himself as follows: "When the land of Ricardo himself and the whole of the civilised world has discarded his lead and when active State interference, curtailment of individual liberty in the interest of social welfare, and insistence on improving the productivity of the nation—the cardinal points in Ranade's presentment of the case for Indian Economics—are being preached and followed in every independent and progressive country, for our authors to blame Ranade for an error and overstatement and to aver, 'We believe the time has arrived when more is to be gained by stressing the points of similarity between Indian and European economic evolution than by harping ceaselessly and unprofitably on the points of difference, is rather touching.'" We were not aware of the hidden tragic quality in the thoroughly harmless thing that we "aver." But it is a comfort to think that if it has touched Prof. Karve, it has at least touched him into almost complete acquiescence with ourselves. Because in the very next sentence we find him saying that "if today there appears to be less dissimilarity between the practical policies followed in the Western countries and those desirable here, the reason is to be sought not in any error on Ranade's part but in the changed and changing conditions in the West." Precisely so. Conditions in the West have changed and are changing. That is also the case in India. Further, Political Economy has itself become more practical and less dogmatic than it used to be when Ranade wrote. For all these reasons Ranade's words now require to be substantially qualified. Also, it has become more necessary than ever for students of Indian Economics to devote careful study to Western economic theory and practice. Too much insistence on the dissimilarity between Western and Indian conditions is apt to result in a neglect of such study with its attendant evils of superficial analysis and undue suspicion of modern methods of economic betterment and social progress. Our quarrel is not with Ranade, "the father of Indian Economics," but with those among his spiritual progeny who continue to repeat his phrases without considering whether they still apply in view of altered circumstances, and who sometimes use these phrases as substitutes for sound and painstaking economic analysis.

Prof. Karve asserts that we have disposed of the question of "State *versus* Individual Ownership of Land" and the allied question whether Land Revenue is a tax or rent, by concluding "straightaway" that both these controversies are futile and practically unimportant. This is rather a cavalier handling of truth, the fact of the matter being that these questions have been discussed more fully and exhaustively in our book than in any other general treatise on Indian Economics with which we are acquainted. It is quite true, however, that as a result of this discussion we do come to the conclusion that these controversies are futile and practically unimportant. One or two of the many reasons we have advanced in support of this view have alone been referred to by Prof. Karve though he hints that our whole case rests on them. We have argued among other things that even supposing that the theory of State landlordism is accepted it does not follow that all complaints against the State on the ground of ex-

cessive assessment straightaway lose their rational justification. The State, it must be remembered, is a moral entity and cannot take its stand merely on its legal rights as an individual landlord can. This is a different thing from saying that the Land Revenue in India has never been actually oppressive in its operation. For, although Government have generally talked on some universally acknowledged principle, they have sometimes acted on self-interest narrowly conceived. But the point is that Government cannot afford to take up the position, that since the State is the landlord, the question of the justice or injustice of any actual assessment cannot arise. Moreover, it can always be argued that the State no less than a private landlord can never hope to rear a durable structure of its own prosperity on the ruin of its tenants. Further, it seems quite legitimate to point out that in a country like India where three people out of every four are agriculturists, the State, if it represents anybody, represents the agriculturists, and therefore, it is difficult even to conceive of the interests of the State as separate from the interests of the peasants. The whole drift of the argument is to show that the case for a moderate Land Revenue is not perceptibly weakened even if we admit (which we do not) that the State is the universal landlord. Prof. Karve's comment on this is that "comment is needless" and that whatever this is, it is not Indian Economics, and so on. If we are wrong, we are prepared to be led by Prof. Karve to more considerate and wiser conclusions, provided he leads us argumentatively and reasonably. Mere expletives and exclamations may serve to relieve his feelings but they do not help us in any way.

True critical faculty is said to be compounded of sympathy and judgment. Prof. Karve, we fear, shows no trace of either the one or the other. He has written in a purely carping and fault-finding spirit. His sole idea has been to give us a thoroughly good trouncing, and as he himself tells us, he has confined himself only to "the most glaring features" (*sic*) of the book. The indiscriminate hitting in which he has indulged has not enabled him to light upon a single true defect. All the same we are not so vain as to imagine that the book is anything like faultless, and it is no mock spirit of humility that, towards the end of our Preface, we express the hope that the many imperfections of the book might impel others to try and do better. The task itself appears to us so easy that even Prof. Karve may be able to accomplish it, provided he takes care not to allow the partisan in him utterly to wipe out the student. In the meanwhile, however, he seems to find his main delight in writing splenetic and rather spiteful reviews.

G. B. JATHAR.

S. G. BERI.

CHINA'S INDUSTRIES AND FINANCE by D. K. Lieu. 288 pages. Published by the Chinese Bureau of Economic Information. Price not stated.

China has recently figured much in the daily newspapers as the scene of most interesting and most important political revolution in Asia. Its importance lies in the revolt of one-fourth of the human race against the tutelage which Europe had imposed upon it, and its interest lies in the methods by which this vast mass of heterogeneous humanity has achieved unity and independence in spite of tremendous obstacles. The importance of the event however does not end with the checkmate of Europe. It is much more. China is the greatest land mass and the greatest unit of population in the whole world. It is $1\frac{1}{2}$ times as great as the U.S.A. in area and 4 times as large in population. What lends point to these advantages is that they are coupled with large undeveloped industrial resources and a high degree of mental equipment, perfected by a development extending over thousands of years, able to put these resources to the best possible account. The economic possibilities of the Chinese revolution are infinite and are bound in course of time to overshadow its purely political and military aspects. With uneven steps, China is slowly, but surely, effecting a transition from its medieval economy, based on the joint family, the guild, cottage industries and *petit* agriculture, to a modern economy based on the individual, the trade union, the factory and large scale organisation. With this industrial revolution, the economic as well as the political centre of gravity is steadily shifting from the Atlantic to the Pacific. Any book throwing light on this process of worldwide importance is therefore welcome and should excite a lively interest in India which, besides being a close neighbour, is faced with exactly similar problems of industrial transition.

The collection of articles on Chinese industry and finance by Mr. D. K. Lieu of the Chinese Government Bureau of Economic Information in the book under review does throw this light. As the Chief of the Investigation Department of the Chinese Government Bureau of Economic Information and Technical Expert to the Financial Readjustment Commission and the Chinese Delegation to the Special Customs Conference, as a former Professor of Economics of the Tsin Hua College and Contributing Editor of the Chinese Social and Political Science Review, Mr. Lieu is eminently qualified to deal with the economic problems of his country. In handling them in the course of the book, Mr. Lieu shows wide knowledge, critical judgment and imaginative but correct interpretation. His difficulties are the same as those of the Indian economist trying to describe, explain and interpret Indian economic facts in the light of Western economic theory. Mr. Lieu overcomes these difficulties with a fair amount of success though not entirely, and if the success is not complete it is more due to the inherent difficulty of the task than to the defects of the author. The book is mainly descriptive and statistical and is somewhat disjointed in form as it consists of a series of articles written at different times on the Industrial Development of China, the Financial Organisation of China, the Industrial and Financial Statistics of China, the Likin System

and its Effects on Industries and Finance, International Administration and Financial Control of Chinese Railways, the Cost of Production in the Chinese Iron and Steel Industry and the Development of the Chinese Silk Weaving Industry; but it nevertheless contains an element of unity as all these subjects relate to Chinese industrial transition. In reading these articles full of varied and interesting information, one feels as if one is reading chapters from any orthodox book on Indian Economics, with this difference that the book under review is not a complete book on Chinese Economics. It omits consideration of Agriculture and allied subjects though it gives some agricultural information under the heading of Industrial and Financial Statistics. The chapter on the Banking Organisation of China called by the author the Financial Organisation of China is extremely interesting and contains information on indigenous banking which should prove useful to the Indian Banking Enquiry Committee. The element of trust is highly developed in China and ownership of capital does not necessarily carry with it control. This is exercised in certain financial institutions by managers who do not find any capital but are nevertheless shareholders in virtue of their labour. It is interesting to know that there are banks without capital at Suoyuan and Ningpo which depend entirely on deposits carrying no interest. No money is used as all trading transactions are paid for and settled through them showing a high degree of public confidence and an advance on modern banking practice under which cheques may be *cash*ed. The account of a Chinese co-operative credit is so interesting that it deserves to be quoted in full. "A group of farmers, small tradesmen or any kind of people, probably twenty or thirty, may come together and organize a society. Each pledges to pay a share or half a share, which may be as small a sum as 100 coppers, once a month or two months. One of the group, usually the promoter of the society, serves as the chairman, and the monthly or bi-monthly meetings are held at his house. A dinner is served to those who attend the meeting, at the expense of the chairman, who in turn is entitled to the privilege of making use of the fund collected at the first meeting. Thereafter the fund at any subsequent meeting goes to the highest bidder, that is, the man offering the highest interest or to the lucky man who has the largest number of points at a throw of six dice." It is difficult to improve upon the machinery for securing the interest and attendance of shareholders.

Though some of the problems, for instance the international control of Chinese railways, are peculiar to China, yet many of them bear a close and inevitable resemblance to those of India since it, like China, maintains a dense population on a primitive economy; but while India has removed some obstacles to her economic development, China has still to remove them. The Likin System corresponding to our old system of internal transit duties still afflicts the latter and the absence of railway transport in many parts still hampers its full industrial development. One feels tempted to enter into a detailed comparison between the methods of business organisation, sizes of agricultural holdings and standards of living prevailing in the two neighbouring countries, but it would be beyond the scope of this review, and the task may be left to the curious reader. On the whole, the author has

managed to convey a lucid and interesting picture of the industrial condition of China at the present day and those Indian economists who wish to make a comparative study of the economic condition of the two countries and those general readers who are interested in restoring the ancient culture and economic relations between them will be amply rewarded by a perusal of Mr. Lieu's interesting and informative book.

H. R. BATHEJA.

LABOUR MANAGEMENT by Gordon S. Watkins, Ph.D., Professor of Economics, University of California. A. W. Shaw Company, New York. Pp. 726.

In these days of severe Labour trouble in the country, any light that can be thrown upon the problems of Labour must be welcome to those whose business it is to deal with Labour. We have gone through Dr. Gordon Watkins' book with great care, and can unhesitatingly state that it is a work of great value. It should be read and studied not only by the academician interested in Labour questions, but should be particularly studied by Managers of industries, mills and mines, railway and dockyard controllers of labour, welfare workers and social service organisers. We are confident that a careful study of this work—for it is no matter of light reading—will prove of much help to the men who are face to face with the live and momentous issues of Labour control.

The major purpose of the book is to analyse the problem of human relations in industry and to present those principles and methods of procedure which intelligent understanding and practical experience have proved essential to the successful management of employees. It recognises the growing interdependence of industries and the increasing complexity of modern economic organisation which makes the whole life of the community sensitive to a high degree to disturbances in industrial relations. The author holds that no single key would unlock the door through which the solution of these perplexing problems of employment relations is destined to come. There is no panacea. If there be any hope, he believes it would come through three fundamental conditions: (1) an intelligent understanding and scientific interpretation of the forces of evolution which have produced modern industrialism, (2) a scientific investigation of employment conditions which appear to be the basic cause of working-class revolt, and (3) the application of workable methods of improving employment relations. He feels that this scientific attitude of mind is being applied more and more to these problems, and therefore on the whole he is optimistic, despite signs to the contrary that show up forcefully both from the side of the employers and probably more forcefully from the side of the workers.

He holds, and rightly holds, that the management of industry is not only the management of things, but is fundamentally management of persons as well. Indeed the management of human forces in industry is attended with greater difficul-

ties than is the management of mechanical factors. The most perplexing problems of industry and business revolve about the human equation. The human factor is not a passive, inanimate object, as are machines and materials, but is an animate, active agent capable of co-operation and non-co-operation. The problem thus essentially resolves itself into obtaining that mutual understanding and cordial co-operation between owners and workers on which alone can the present form of society hope to endure with success. Dr. Watkins' investigation into American industrial problems leads him to admit the possibility of improving employment relations under the present industrial system, with all its obvious deficiencies, and accepts the conclusion that employers and employees have fundamental interest in common which may be harmonized by the application of intelligent methods. Paternalism may endure for a time, but with the growth of education, enlightenment and the democratic sense, its ultimate failure is inevitable. What is required is growing co-operation between Management and workers on self-respecting basis. For, after all industry is not an end in itself but is rather a means to an end, an end which is dominantly social. Says Dr. Watkins, "The social objective is service to the whole community in the enrichment of human life and experiences and in the satisfaction of ever-expanding wants and desires. Industry is a vehicle of social progress. There is no legitimate excuse for the subordination of our economic organisation to the purposes of a privileged few; the objectives of constructive social advancement require that industry shall become the instrumentality for the benediction of all. The functions of industry are social, not individual, and it is a primary responsibility of personal management to accentuate the social character of these functions." To those whose beliefs are grounded in the traditional conceptions of the individualism of the eighteenth and nineteenth centuries in regard to industry and business it will be hard to accept Dr. Watkins' conceptions of the economic organisation of society. But the contention of his exhaustive labour in this book is to show that while our society is essentially acquisitive in its make-up, and that profits will remain the dominant motive of economic endeavour, there is no fundamental conflict between this and the view that industry is the hand-maid of society in general. He has divided his book into eight parts. Parts I and VIII deal with Introduction and Conclusion. Part II is Historical. Part III treats of the Psychological Aspects of the Problem. "Wage-earning men and women," says the learned doctor, "and those who perform managerial functions do not check this psychical baggage at the entrance to the workshop. The place of work does not offer them an escape from the psycho-physical traits which play so large a part in the determination of what social psychologists are wont to call 'behaviour pattern.'" Those who have grasped this simple but significant truth would be the best fitted to deal with the problems of Labour arising in Industry. This part of the book is its vital part and is full of most interesting and instructive observations and suggestions. It should be studied with care. It examines and analyses human nature into its essential traits and behaviours, and tries to show how these can be best harnessed into the service of the economic life of the community. It also makes plain the dangers that must follow any

treatment that goes contrary to these fundamental traits inherent in the human make-up. The point, of course, is, whether the analysis given is correct, and whether the strength attached to each trait or impulse is accurate. Further studies are needed on this subject before positive deductions can be made with entire satisfaction.

Part IV deals with the Structure and Functions of Personal Organization. In the development of his theme amongst other things, Dr. Watkins makes out a very strong case for the appointment of a highly qualified officer who should be given the status of other high grade officers in the establishment, whose primary function would be the supervision of policies governing industrial relations, and to advise and interpret the larger implications of the labour movement, the ideas and the point of view of the workers and general development, national and international, in the field of industrial management.

Part V deals with the Problems and Methods of Recruitment, Selection and Placement. Here the author touches a weak spot of the industrial structure. We can say that as far as industrialists in India are concerned, they would learn much from this section of the book. The vital importance of the proper recruitment, the right placement and just advancement involving correct job analysis and job specification and honest dealing is apparent to any who has the slightest knowledge of industrial affairs, and yet we know what little care is given to this aspect of the question here in India.

Part VI deals with Problems and Methods of Maintenance. It would suffice to bring out the significance of this section of the book if we were to give the bare headings of the various chapters that comprise this section: Labour Turnover; Absenteeism, Tardiness and Discipline; Creating Interest in the Job and the Enterprise; Transfer, Promotion and Discharge; Wage Systems and Financial Incentives; The Workers' Participation in Industrial Ownership; The Education and Training of Employees; Education and Training of Executives; The Plant Magazine; Safeguarding the Workers' Health; Industrial Accidents and their Prevention; Hours of Labour in relation to Health and Output; The Physical Environment of Work; Company Housing and Community Improvement; Regularizing Employment; Miscellaneous Personnel Services.

Part VII deals with Industrial Government. "In the last analysis," says Dr. Watkins, "perhaps workers' representation in the councils of industry is nothing more nor less than an equitable fulfilment of moral responsibility." With this in his mind, he discusses the various plans and methods by which this ideal can be progressively realized. He is no believer in over-night schemes of self-determination in industry, but believes in a gradual and enlightened process of evolution.

In conclusion one can only reiterate that this book—a really exhaustive work—written by a master of his subject should be read by managers and controllers of labour in India and even by Trade Unionists.

Of course, it relates the problems of American industry, but nevertheless it is full of valuable suggestions for our purposes. Comparative studies are never

unfruitful. In fact our complaint is that we wish more frequent and constant reference had been made to the conditions prevailing in other countries. We seek for this in vain in this work, except for limited references.

We also feel that in certain respects much unnecessary details of plans and methods have been given. It has rather overloaded the book and makes for tedious reading. Yet we can see the usefulness of such a procedure from a practical point of view.

Finally we cannot help wishing that the book had dealt more critically and thoroughly with the Trade Unionists' and Communists' contentions. We feel the lack of adequate treatment of this side of the question. It may be that in American industry the problems arising from these quarters are not so acute and hence the limited discussion that was given to this side of the question. It may also be that the book does not deal with the Labour Movement, but only with the question of Labour Management and hence it was not thought worthwhile to devote more space than was given in Part VII, to the Trade Unionist, Socialist and Communist sides.

S. K. RUDRA.

A SURVEY OF SOCIALISM: ANALYTICAL, HISTORICAL AND CRITICAL by F. J. C. Hearnshaw, M.A., LL.D., University of London. Macmillan & Co., London. Pp. 473. Price 15s.

The name of Prof. Hearnshaw is not unfamiliar to students of Economics. To those who are particularly interested in the problems of Labour and Social theories his writings have proved of great light and guidance. His present book is no exception to this, indeed it may safely be said that no student of the subject can without damage to his own reputation neglect to read and study it. The book is the outcome of a close study of the problem for over forty years by a great scholar who has spared himself no pains and exertions to make the fullest study of the subject. We may not accept all the conclusions at which Prof. Hearnshaw himself arrives, or even agree altogether with the method he has adopted, yet all will respect his views and many will adopt them as their own. The conclusion to which he arrives may be briefly stated in his own words: "I frankly and at once confess that the effect of my forty or so years of study, observation and reflection has been radically to alter my views of socialism. While still alive to the good work which it has done in calling attention to grave industrial evils, and in rousing the communal conscience by passionate appeals for their removal, I have reluctantly but decidedly been compelled to come to the conclusion that its diagnosis of the diseases of the body politic is so entirely wrong, and the remedies which it proposes so dangerously pernicious, that it is necessary to denounce it as a public peril."

The book has been divided into three parts, apart from the Preface and the Introduction. Part I is Analytical, and contains three chapters entitled **What Is Socialism; The Six Essentials of Socialism; What Socialism Is Not.** Part II

is Historical and contains five chapters entitled Ancient and Mediaeval Communism; Early Modern Communism; The Genesis of Modern Socialism; Marxian Socialism and Modifications of Marxism. Part III is critical and contains two Chapters and Conclusion. The two chapters are entitled Merits of Socialism and Defects of Socialism. There is an Index and a Book List. The Book List is very complete indeed and is of great value.

In the Analytical part a research is made into the first use of the word "Socialism." It is found to be a purely nineteenth century coinage and first employed by the members of the London Co-operative Society, founded in 1824, and recorded in its journal *The Co-operative Magazine* for November, 1827.

The vagueness of the meaning of the term Socialism is then driven home into the reader's mind. "The vagueness, elusiveness and protean changefulness of the term 'Socialism' is the first characteristic which strikes any impartial student who attempts an examination of the subject," writes Dr. Hearnshaw. Prof. Ramsay Muir writes: "Socialism is a chameleon-like creed. It changes its colour according to its environment. For the street-corner and the club room it wears the flaming scarlet of class-war; for the intellectuals its red is shot with tawny; for the sentimentalists it becomes a delicate rose-pink, and in clerical circles it assumes a virgin-white, just touched with a faint flush of generous aspiration." He quotes the fact that in 1892 *Le Figaro*, the well-known Parisian journal, in inviting a discussion on this very point obtained 600 separate definitions of socialism. And in England in 1924 when the Socialist Government was in office, a book written by Mr. Dan Griffiths, entitled "What Is Socialism" supplied the reader with 263 varieties of the species.

While we feel that Prof. Hearnshaw's criticism of this matter is justified since it makes criticism of Socialism a difficult if not a hopeless task, we feel that just because a great social force cannot be fitted into a precise and clear-cut definition it therefore should not stand self-condemned. If we followed this criterion we would have to banish from the records of history many of the great movements of human emancipation which have made for progress, enlightenment and civilization.

Besides, the learned professor himself distinguishes six essential principles which he sets forth as the attributes of Socialism. It is characteristic common features like these that can be traced in the writings of most Socialist thinkers that give the importance to Socialism, and demand a study at the hands of all serious students of human affairs.

The six essentials which according to Prof. Hearnshaw distinguish Socialism are :

- I. Exaltation of the Community above the Individual.
- II. Equalization of Human Conditions.
- III. Elimination of the Capitalist.
- IV. Expropriation of the Landlord.
- V. Extinction of Private Enterprise.
- VI. Eradication of Competition.

And he classifies them into three groups of two each. The first two in their pure form have much about them that is commendable and attractive. The last two are economic follies that attract the mad. And he deems that the middle two are ethical iniquities which allure the criminal.

The author holds that the beauty and the power of inspiration that exists in Socialism is traceable to its first two principles set forth above. He says: "There can be no doubt that Socialism's exaltation of the community above the individual; its apparent advocacy of altruism as against egoism; its insistence upon the solidarity of the human race; its emphasis upon the interdependence of man; its proclamation of the truth that among mortals all action has social results, and that all results have social causes; its reiteration of the fact that we are all members one of another; its representation in an impressive form of the organic conception of the State; its appeal to the conscious brotherhood of man—there can be no doubt, I say, that these aspects of Socialism, and particularly of the purer and older forms of Socialism, have powerfully appealed to fine and idealistic minds, and have won to the Socialist cause many noble men and women who have failed to perceive the baser materialism and immoral elements which accompany them."

But Prof. Hearnshaw holds, and who can seriously dispute the point with him,* that present-day Socialism has lost much of this splendid altruistic conception of the brotherhood of man, and has now, especially since the days of Karl Marx, degenerated into a deadly and bitter class struggle. And yet it must be admitted that some of the best men and women in the ranks of the Socialist have clearly stated that it is the capitalist system which they are out to destroy and not capitalists themselves.

Again an important point is conceded by the writer when he says: "On economic and political grounds, as well as on moral and social grounds, it is to be wished, on the one hand, that there should not be great and glaring inequalities of wealth; and, on the other hand, that absolutely, and not merely relatively, the condition of the immense majority of the human race should be raised. The Socialists seem to hold a strong ethical position when they proclaim the doctrine of equalization of human conditions." We do not think it is possible to deny the immeasurable service that Socialism has rendered to humanity at large by criticizing this aspect of capitalistic society. Who can measure the suffering, the acute distress and anguish which millions of men and women have suffered and are still enduring, because of the grave inequalities in the distribution of wealth and all that this implies in a world constituted and dominated in the main by economic considerations. Socialism has been one of the most potent influences which has lashed the dulled conscience of Society into passing legislative measures for the amelioration and protection of the large masses of the depressed and unfortunate sections of the community.

But the truth and even the force of the observation made by the author must be largely admitted, *viz.*—"But just as operative socialism means, not humanitarian reform, but proletarian revolution, so in practice the equalization of human

conditions denotes, not so much the elevation of the lower as the humiliation of the higher; not so much the enrichment of the poor as the impoverishment of the rich, not so much the general increase of wealth as the increase of confiscatory taxation, not so much the salvation of the lost as the damnation of all who are not lost."

"With reference to some of the other distinguishing marks of Socialism the author says about Marx "He translated community, into 'class,' and 'solidarity' into 'proletarian ascendancy'; he transmuted 'co operation' into 'conflict', he transformed zeal to enrich the poor into a consuming lust to despoil the rich. He converted love into hate, peace into war, the enthusiasm of humanity into a passion of destructive rage. Above all, he rejected with disdain the fine but ineffective motive power of his Christian and Utopian forerunners, viz, altruism with its connotation of service, sacrifice, self abnegation and surrender, and he substituted for it the potent but baser motive power of primitive individualism, viz, acquisitiveness, with its implications of struggle, conquest, spoliation, dictatorship. It was Marx who above all other men corrupted Socialism and turned it into the evil thing that it is now."

As to the matter of the eradication of competition, Prof Hearnshaw writes "Now there is something extremely attractive to the normally lazy and incompetent individual in being freed from inconvenient rivalry of his more energetic and capable fellows, in being allowed to become a sleeping partner with the efficient, and in being assured of a share in the prizes of life without the trouble of contending for them. Wherever Socialist experiments have been tried, the absence of competition has led to slackness, an apathy, an indifference, an indolence, that has fatally lowered the standard of productiveness, reduced output and plunged the whole community into destitution." Here certainly, is one of the greatest, if not the most serious obstacles that confronts Socialism and more particularly Communism. Indeed no system of society, however we may name it, can dare to flourish if the citizens composing it, for whatever reasons, slacken their efforts in the domain of production and recreation, unless, of course, primitive standards of living are accepted for universal adoption.

A very interesting and instructive analysis is given of comparison and contrast between Socialism and Communism. Space unfortunately will not permit us to notice any further these and other points. The reader must refer to the book itself for a detailed study of the matter.

The Historical part, which forms the larger portion of the book, is full of scholarly research and detailed study. It throws much light on many of the dark places in history. A reading of this portion of the book is full of fruitful results. Right through these are trite and shrewd observations and remarks and much dry humour, full of suggestion and provocative of thought. The writings and teachings of thinkers and philosophers, Utopians and Socialists of various orders are clearly given, ably analysed and aptly summarized. We get a very thorough study of the growth of Socialist thought and schemes from Barbarians, Plato, Moses, Medieval Fathers and monks, Utopian writers like Sir Thomas More,

André the German Lutheran divine, Francis Bacon and Campanella, Locke and Rousseau, Saint Simon and Louis Blanc in France, Ricardo, Robert Owen and the Christian Socialists in England, Hegel, Rodbertus, Lassalle in Germany to Karl Marx, who as it were brings all these diversities of thought and practice into the rigid tenets of his conception of Socialism, which he proudly calls Scientific Socialism. And then beyond that we are taken through a study of Syndicalism, Guild Socialism to the consideration of Leninism. The survey is complete and masterful.

The national characteristics of the various schools of thought are tersely summed up thus: 'We have now observed the rise in France, England, and Germany respectively, of the three main streams of influence which, when united and combined, constituted Modern Socialism. Summarising our observations broadly, we may say that France contributed the sociological element, England the economic, Germany the political. The French thinkers, under the inspiration of Rousseau, stressed the exaltation of the community over the individual, and urged the equalization of human conditions, the English thinkers, misinterpreters of Locke and Adam Smith, propounded the labour theory of value, and placed the elimination of the capitalist and the expropriation of the landlord in the forefront of their programme, the German thinkers, deriving their Casal philosophy from Hegel and consequently sharing his profound faith in the State were primarily collectivists eager for the extinction of private enterprise and the eradication of competition.'

We cannot help making the remark that while Prof. Hearnshaw tries to be scrupulously fair, yet the strength of his convictions against Modern Socialism is so powerful that we feel that in several places he is less than just, or at any rate he is ruthless in his condemnations, especially of Marx. For example, what could be more severe or more scathing than this passage: 'It is difficult to avoid the conclusion that he knew the fallacy and even the absurdity of the economic theories which he propounded in his leading works, and that he deliberately involved them in such a maze of ambiguous verbiage that it is impossible when to unravel them. Be this as it may, his disingenuousness, his prejudice, his one-sidedness, his evil temper coupled with his pedantry, his obscurity, his abstractedness, his failure to face facts, his lack of touch with reality—these things deprive his writings of all scientific value, and leave them as monuments of wasted energies and prostituted abilities.'

But for all this we consider this book by the learned Professor a weighty and a powerful addition to the literature on Socialism. It is a strong corrective that is needed by most people who think along popular lines of Socialism and Communism, especially in India at the present time.

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PART 2

A LESSON FROM BARDOLI

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LAND-RENT AND LAND-TAX

A good system of land revenue, particularly in the Rayotwari Provinces, must stand the test of correct economic theory in relation to value, rent and taxation, and it will be useful to examine the facts and the principles brought out by the Bardoli report, from this scientific point of view. Mr. Anderson¹ has presented his case with great ability, having brought to bear upon the work his unrivalled knowledge of the Bombay land revenue system and his vast experience of revenue settlements; and his book is enlivened with mordant wit and deadly sarcasm. But unfortunately his facts and his interpretation of them, have been rejected by competent, independent judges, and it will now be seen that his whole theoretical background is ill-conceived and ill-suited and that therefore, the entire picture is utterly distorted.

1 "Facts and Fallacies about the Bombay Land Revenue System,"

In the preface to his book, Mr. Anderson says:—"The point urged that the whole facts are not available, is of course not true. All the relevant facts are fully available for those who will trouble to study them. But there are a great many futile and irrelevant enquiries which have never been made and ought not to be made. The salient feature of this Presidency is that there are far too many people on the land (not working on it, but idling) and far too few in industries. Every step taken to reduce further the burden of the land tax must make conditions worse and worse, till a fearful disaster ensues. It is rent and land revenue alone that can save." The recent implicit admission of the Government of Bombay in the local legislature relating to the inadequacy of the facts in revenue matters as they are now available and their announcement about the provision they propose to make to collect more facts, to arrange them systematically and to maintain them up-to-date, is an interesting commentary on the opinion expressed by Mr. Anderson, but he will obviously reply that in this, as in other cases, "they have been guilty of unsound thinking." We have, however, to see here whether his theoretical discussion is sound.

It has been already indicated that Mr. Anderson is a thorough-going believer in Ricardo's doctrine of rent. Now, it is well-known that very few economists hold by the theory of land rent as it was conceived by Ricardo; a large number accept it in a modified form and within severely narrow limits and several discard it altogether, all the while paying due tribute to its great author for the ingenuity and the scientific usefulness of his contribution to economic thought. Ricardo's theory of value has been almost universally discarded, and his theory of rent, which was indispensable to complete and to justify it, has gone by the board. Mr. Anderson thinks it superfluous to discuss the law of rent because he believes that "Ricardo has proved it to the hilt," and approvingly quotes Henry George thus:—"Thus rent, or land value, does not arise from the productiveness or utility of land.

No matter what are its capabilities, land can yield no rent and have no value unless some one is willing to give labour or the results of labour for the privilege of using it, and what every one will thus give depends not upon the (absolute) capacity of the land but upon its (relative) capacity as compared with that of land that can be had for nothing." Then follows Mr. Anderson's commentary:—"Rent is that part of the yield or 'income' from land which is not earned, NOT EARNED either by the cultivator or the landowner, if there be one. . . . Therefore it is rightly termed the 'unearned increment' (I prefer 'unearned income'), in other words, it is picked up like treasure trove, and every argument that starts with the idea that the rayat earns his land revenue and then has to hand it over to Government or a landlord starts falsely and ends worse."

It is not necessary here to trace the history of the development of the theory of rent from the time of the Physiocrats down to the present day, and it will suffice to say that while almost everything else in it has been rejected, the differential element in Ricardo's theory of land rent has been accepted by the majority of economists, and it has been extended and generalized. The most sympathetic writers, who are prepared to allow that Ricardo's theory was perhaps justifiable in the economic and social conditions that surrounded him and under the assumptions he made, categorically deny its validity as a general explanation of rent from land. As Prof. Buchanan² points out, Ricardo was "a remarkably able businessman who dealt with concrete national problems in a highly abstract manner," and the essence of his rent theory can be appreciated only if his hypotheses are clearly understood. Ricardo's theory of land rent was only a scaffolding for his labour or cost-of-production theory of value, and very naturally the former collapses when the latter falls. At the end of a sympathetic analysis of Ricardo's system of thought, Alfred

² In his article "The Historical Approach to Rent and Price Theory" in *Economica* for June, 1929.

Amon is thus driven to the conclusion: "So not one stone of the superstructure of his economic thought remains on another."³ The idea that rent is a surplus which represents the excess of the market price over different individual costs of production, has received general acceptance, but such a surplus does not, by any means, give an adequate explanation of the essence of the payment or income received by the landlord. Differential gain is not confined to the agricultural industry, and an element of rent can be traced in other incomes. This explanation has been developed in an interesting manner, among others, by Marshall. Why does land yield rent? Is it on account of its varied fertility or its scarcity or its niggardliness or the monopolistic character of its ownership? Any one of these explanations would, at best, be a half-truth. And Ricardo's theory may be regarded as such. The notion that land rent is an unearned income, originates even to-day in an unconscious and lingering belief in the labour theory of value. Rent is, again, said to be a social product, but which income is not a social product? Both wages and interest are social in this sense and value itself is, in Economics, a social concept and a social phenomenon. Since there is, however, little difference of opinion among present-day economists as regards the differential element in land rent, the point need not be laboured here and we shall content ourselves with summing up the argument in the words of Prof. Rist:—"Rent, whatever form it takes, is not an anomaly, but a perfectly normal consequence of the general laws of value. Whenever any commodity, from whatever cause, acquires scarcity value—its price exceeds its cost of production, there results a rent for the seller of that product. Such is the general formula, and therein we have a law that is quite independent of the law of diminishing returns and of the unequal fertility of the land."⁴ "Scarcity" is here to be understood in its technical economic sense.

³ "Ricardo als Begründer der theoretischen Nationalökonomie."

⁴ Gide and Rist: "History of Economic Thought."

The statement that rent is not an element in the cost of production, which is true only when applied to the differential gains of intra-marginal producers, but can not be legitimately used with regard to all land rent as such, has caused a good deal of misunderstanding and confusion and is largely responsible for the conclusion that rent from land is an 'unearned income.' An essential condition of the Ricardian theory is the existence of no-rent land. Land on the margin, where the price of the agricultural product is determined, has no supply price, and capital and labour shift from farming to manufactures and vice versa in order to secure maximum returns. According to Ricardo, there is only one margin for land, the non-economic margin, where land emerges from or lapses to nature, as labour and capital shift one way or the other, land itself having no alternative use and therefore earning no payment on the margin. In the article referred to above, Prof. Buchanan explains how the conclusion of Ricardo that rent does not enter into the cost of production and the exceptions to this law, recognized by Adam Smith and Mill, proceed from two different sets of hypotheses. We shall quote from the article to clear up the position:—"The hypotheses of the Ricardian treatment were natural to the practical problem with which they dealt. They considered only rural rent and reduced all kinds of raw produce to one. They therefore supposed that land had only one use and that rent payment was not necessary to secure its contribution to the product. These hypotheses are essentially the same as those taken by the Physiocrats and by Smith when dealing with rent and "the produce of land." In all three cases the hypotheses depended upon the fact that the writers were interested primarily not in a theory of exchange for particular commodities, but in the incomes of the various classes." J. S. Mill found it necessary, in certain cases, to abandon the Ricardian position, to make rent an expense of production and to recognize that "there is a competing use for the land and that because it is valuable for one use that rental becomes a necessary expense for whatever

commodity it furnishes.”⁵ Jevons went a step further, and “ while Ricardo spoke of the shifting of labour and capital between raw produce and manufactures, Jevons adds the shifting of land between different kinds of produce, and insists that this is the rule. He is concerned not with the supply of “ raw produce,” but of potatoes, clover and turnips. And he takes for granted what the Ricardians did not, that the land has a competing use.”⁶ Jevons thus exposed a serious error in the thought of the “ wrong-headed man ” and his “ wrong-headed admirer.”⁷

Marshall made a notable contribution to the formulation of the modern theory, the theory of equilibrium of price and the competing factors of production, land included, at their margins of maximum utilization. While insisting on the fine distinction between return to land and to the other factors of production, he says:—“ It is true that land is but a particular form of capital from the point of view of the individual manufacturer or cultivator. And land shares the influences of the laws of demand and substitution . . . because the existing stock of it like the existing stock of capital or of labour of any kind, tends to be shifted from one use to another till nothing could be gained for production by any other shifting . . . the income that is derived from a factory, a warehouse or a plough (allowance being made for wear and tear, &c.) is governed in the same way as is the income from land. In each case the income tends to equal the value of the marginal net product of the agent: in each case this is governed for the time by the total stock of the agent and the need that other agents have of its aid.” In view of the enunciation of this doctrine, Edgeworth thinks:—After this explicit explanation it becomes a mere question of words whether we ought to retain the old formula “ Rent does not enter into the cost of produc-

⁵ Buchanan's Article in “ *Economica*.”

⁶ Buchanan.

⁷ “ *Theory of Political Economy*,” by Jevons.

tion." Professor Marshall retains it.⁸ On account of the misapprehension which the time-honoured phrase caused, Marshall himself concluded: "it seems best therefore to avoid the phrase." Prof. Buchanan is not, however, satisfied with this incomplete or half-hearted exposition of the new theory, and contends that in spite of Marshall's recognition of the 'product-changing' margin in stating, for instance, that "each crop strives against others for the possession of the land, and if any one crop shows signs of being more remunerative than before relatively to others, the cultivators will devote more of their land and resources to it," he (Marshall) fails to state that "the whole produce from these places is marginal because of the shifting of the land." Marshall ignored the land-changing margin, and failed to show the whole machinery by which equilibrium is maintained.

A critic of the Ricardian doctrine puts it pithily when he complains that in it "by a sort of theoretical magic the entire prosperity of society is made dependent on land margins, instead of the general, mutually interdependent and shifting use-margins of labour, land, capital and enterprise, covering the entire economic field."⁹ He goes on to explain that there are margins of utilization in all parts of the economic field and every factor of production has its margin of utilization, and adds:—"The economic margin is a balance or a sort of equilibrium, although it may be a moving equilibrium. It is a place where applications of the requisites of production realize proportional returns under a system of competition, there being no surplus if all of the factors are on this margin." The difference between the old and the new theory is succinctly brought by Philipovich¹⁰ in the following sentences:—"The new theory of land rent is distinguished from the old in this that the latter proceeded entirely from the phenomenon of a differential rent and did not regard rent as a price

⁸ "Papers Relating to Political Economy," Vols. I and III.

⁹ Richard T. Ely: "Costs and Income of Land Utilization."

¹⁰ "Grundriss der Politischen Oekonomie," Vol. I.

inasmuch as it considered rent as an effect of price. The new theory, on the other hand, explains land rent as well by the general law of price and believes that once rent makes its appearance, it enters into price, that differential rent is a phenomenon which is found likewise in connection with interest, wages and profit and there is, therefore nothing in it which is special to land rent." Cassel¹¹ and Alfred Ammon¹² rest their theory of rent upon a similar foundation, which is relative scarcity. The latter observes:—"The value of no commodity would in reality be determined by its own scarcity—that can well not be because value indicates a relation—but the value of each commodity would be determined equally by the scarcity of other commodities." Criticising Ricardo's explanation regarding the emergence of rent on land of the second quality as soon as land of the next quality is brought under cultivation, he remarks:—"No! A rent emerges on land of the second quality the moment the demand for land of such a quality exceeds the supply of it, equally, whether land of the third quality is taken up for cultivation or not."

A slightly different but essentially similar explanation of land rent is given by thinkers who call rent an income from property.¹³ Incomes are divided into labour incomes and property incomes, the latter being subdivided into ground-rent and capital rent. These are designated property rents to distinguish them from differential rents. It is not the differences in production costs which give rise to rent but the limited supply of available land as also the fact that land is private property. Thus we come to the idea of an 'absolute' land rent which is the price that has to be paid for the use of a productive good. Some economists, further, are inclined to regard land as a kind of capital and deal with land rent separately only on account of the circumstance that the supply of land can not be easily increased while that of

11 "Theoretische Sozialökonomie."

12 "Ricardo als Begründer der theoretischen Nationalökonomie."

13 Wolfgang Heller: "Theoretische Volkswirtschaftslehre,"

capital goods is capable of increase without equal trouble. Socialists have seized the Ricardian doctrine and developed it into a monopoly and exploitation theory. Then again, it is impossible to separate Ricardo's 'original and indestructible powers of the soil' from what has been added to it by human labour. Instances are common, of lands which have been transformed by human labour and with the aid of capital. In a community where a large proportion of the people are small peasant proprietors, there is no question of exploitation by one class of other classes. It is in the interest of the community that its members should be provided with the means of earning a livelihood and at the same time be able to supply food and raw materials to society as a whole. It has been happily said that "land is the poor man's opportunity even though the returns are small in percentage"¹⁴ and that investment in land is a kind of savings bank which forces people to save. It is notorious that returns from land are lower than in other investments. Competition for land is keen: as land is open to all and appeals to all.

To the Classical economists, land rent was a social surplus *par excellence*: only it was appropriated by one class to the detriment of the other classes in the community. This unearned income was consequently the most suitable source of taxation. Some modern thinkers who still adhere to the old view that rent is not an element in the cost of production, when called upon to explain the apparent anomaly of land rent being included by individual landlords in their actual costs, declare that here payment of rent has been capitalized and the farmer expects to be reimbursed for the charge he has actually to meet. But they go on to say that rent of land is not a cost from the social point of view, being a bounty of nature, though it is an individual expense, being a payment made for a costless facility or service received. Coulson,¹⁵ for instance, says:—"From the social point of view, rent

¹⁴ R. T. Ely.

¹⁵ "Cours D' Economie Politique," Vol. I,

is not an element in the cost The reason is that the charge does not correspond to any difficulty in production overcome by human labour, be it in the shape of immediate human labour or in the form of saving. It constitutes solely a payment made by one member of society to another for particular facilities provided by the latter." He hastens to add, however, that private property in land being an essential and beneficial social institution, it would be fatal robbery to deprive the landlord of the rent he has legitimately earned. This is an interesting illustration of the ingenious shifts to which thinkers are driven when they strive to adhere to an untenable theory. Mr. H. D. Henderson clears off the cobwebs woven round the subject and pointedly asks the question whether the money cost to the individual represented by land rent corresponds to and measures "any real cost to the community as a whole or whether it is, according to the old notion, a surplus as something distinct from a necessary price." He answers the question unhesitatingly and correctly as follows:—"Land, greatly as it differs in many respects from the other agents of production, resembles them in the very important respect that, being used for one purpose, it is not available for other purposes, and that the productive powers of the community in other directions are thereby diminished. This is the real cost to the community, which attaches to the products of any industry, in virtue of the land it occupies, not any human labours or sacrifices required to produce the land itself, but the curtailment of the natural resources available for productive use elsewhere. This is the real cost of which rent is the money measure"16

Let us now return to Mr. Anderson and connect the correct theory of rent with the approved principles of taxation and examine the treatment this subject has received at his hands. He would obviously have hesitated to propose that by law the maxima rates of land revenue should be so fixed "as to take not

less than half the rental value, as ascertained from actual sales and rents," if he had not been obsessed with the idea that land rent is unearned income—a treasure trove. It should be stated in fairness to Mr. Anderson that he allows total exemption from taxation to "the standard or ideal holding" in lands of different qualities and would tax only the surplus over this minimum. His theory of rent indeed requires this arrangement: all the same, his main conclusion is not scientifically valid. He defines the standard work or holding as follows: "The standard work is that which is necessary to get a living off the poorest land actually in use. No one can possibly till poorer land: he must choose some other job. But the labour and other outlay needed to get that living will, if applied to better land, result in a surplus not earned or deserved." And again:—" . . . the just reward of agriculture is a fair living for as much work as it takes (in the circumstances of the age) to get that living off the poorest land in use taking as large an area of it as is needed for full work. On all other qualities of land, as much area as will give the same work is the standard or ideal holding. The better the land the equal dose of work yields a larger produce. But on all qualities for half work a half living is the just return, and so on. All surplus over this just reward is "rent." The decisive conclusion of Mr. Anderson from this which is of the greatest significance in the present discussion is that "rent is due and accrues on every square yard of land according to its quality—and independently of the number of persons seeking or claiming to live (without work) on that land." Does rent so accrue?

This argument proves how a harmless mathematical truth becomes a dangerous economic absurdity. A cooly receives 10 annas a day for working for 10 hours, which means, that on an average, he receives one anna per hour. But if he were actually to propose to work for one hour, he will not earn and receive that anna and may not be employed at all, being a nuisance rather than a help. A shop 10 ft. by 10 ft. fetches a monthly rent of Rs. 10,

but a shop one-tenth that size will not fetch one rupee: it will not provide even sitting room. Every industry has a minimum unit of plant and buildings of its own; and size and quality must be given equal importance in organization if an economic activity is to yield a net return. In farming, as in other industries, rentability will depend upon the price level and the disposition of the different factors of production. In an ordinary farm, the peasant and the members of his family form the normal labour force, and their living wages constitute a standing charge, which, together with any interest that may have to be paid on working capital, will probably leave nothing as a net return to land. And in cases where the tenant cultivator has to pay contract rent to the landlord, this charge will cut into the wages of the cultivator's family and the deficit has to be made good by work outside or by borrowing. In an undersized farm, even if we calculate the wages for the actual period for which there is regular work in the field, nothing may be left over for rent of land. One of the peculiarities of agriculture is that the cultivator is rooted to his land, as it is a disadvantage with labour that the workman must go to the place where his services have to be offered. Mr. Anderson is quite right when he says that a landholder can not legitimately expect to receive 12 months' wages for 6 months' work, and thousands of our rural people do migrate to towns in search of work to supplement their earnings from agriculture. With Mr. Anderson, however, all is mathematical calculation—Ricardian abstraction—and realities are irrelevant. He anticipates an objector and asks:—"If the true rent of a 20 acre full time holding is 100, how will it be possible for the man with only 2 acres of similar land to pay 10?" and proceeds to answer the question by saying:—"It means that he has ex hypothesi only work for $36\frac{1}{2}$ days in a year (plus such extra work as is necessitated by the unsound and improper attempt to work the land in too small fragments) and from the gross produce he may deduct wages, &c., for those days and then he will find he has 10 left over for

rent-revenue." Averages are necessary and good tools but bad deceitful tyrants. Mr. Anderson seems to think that rent arises mechanically when land, men and implements are simply brought together, and the law of rent is like the law of gravitation. Men exist for the law and the law is not to be based on actual life. He says:—"But the small holder has no other occupation, he has learnt no other trade and there is no employer to give him work? If that is true, then the fault in the social structure is not in the law of rent but in the neglect to develop those other industries and that is the right direction of help and uplift." He has here placed his finger on the real weak spot and also in saying that there are, in the Bombay Presidency, far too many people on the land, and that this is a fault of the social structure. If this is so, how is the small cultivator responsible for the unemployment or underemployment which has been created by bad social conditions and how can he be taxed on a rent which actually does not exist but may come into existence under conceivably different social conditions? Society can not first close other avenues of work and create overcrowding in agriculture and then come down upon the small cultivator, saying 'pay me out of your wages or out of the rent which you ought to and might have earned.' This is doing serious violence to the fundamental principles of taxation, if not also something worse.

Franz Oppenheimer,¹⁷ who is keen on having big landed estates broken up into small plots for the use of peasant proprietors, very properly finds fault with Ricardo (and this applies to Mr. Anderson, an admirer of his), for having developed only one side of the theory of rent, viz., the rent yielded by an acre of land, to the neglect of the others, viz., the size of the land holding. What he says in effect is this: Here is a small worker, engaged in market gardening in the vicinity of London and eking out a laborious subsistence on one acre of land. He is represented

(by Ricardians) as favourably situated in an extraordinary way as to a differential gain because he has a fertile soil near a city, capable of yielding an enormous rent. And on the other hand, there is the Duchess of Sutherland who owns one lakh of acres of land of inferior quality in the Scottish Highlands, and is shown as seriously handicapped, being unfavourably situated because she has land which is classed low on account of its quality and situation. Nevertheless, the former belongs to the wage-earning class and the latter is a big receiver of land rent! Philippovich¹⁸ has likewise made this point clear, and he maintains that the emergence of rent does not depend merely upon the fertility and the location of land: rent has to be worked out by good technical and economic management, and it is, therefore, closely bound up with incomes such as wages, interest, &c. It follows from what has been said above that whether land will yield a rent or net income, will depend upon the size of the holding, the quality and the situation of the land and the manner in which the agricultural operations are organized and managed. In the hands of a small cultivating proprietor, land will probably only provide means which are lacking to a landless man, for earning wages and nothing more, and the position of a tenant may be the same, perhaps worse because he has to pay a contract rent. In holdings of a decent size, a net return will be available whether the land is cultivated by the owner or by a tenant. Only, the contract rent is no guide to the real rent-paying capacity of holdings in as much as allowance has to be made here for the risk of non-payment and the expenses of litigation to recover the stipulated amounts. In many cases, the rents contracted for, are nothing but the amounts of interest on sums advanced by money-lenders who take leases from the cultivating owners. Agriculture is, in many cases, a supplementary or a parasitic industry, and there is no question of a surplus or a rent in it. The cultivator in such a case is a landed labourer.

18 "Grundriss," Vol. I.

Seligman's¹⁹ brilliant criticism of the 'single tax' applies to Mr. Anderson's defence of the unearned income theory and a revenue system based on it, in so far as it is inspired by Ricardo's and Henry George's conceptions. That great American thinker has contributed, as few others have done, to the development and proper appreciation of the correct fundamental principles of taxation, viz., ability to pay and equality of sacrifice. The criticism of Mr. Anderson and the theory he upholds which we have offered in the course of this article, does not at all mean an attempt to bolster up the claims of any one class to light taxation or to exemption from public burdens. It is, by no means, incompatible, for instance, with the line of taxation-reform advocated in the excellent article contributed to the last number of this Journal by Prof. J. C. Ghosh on 'Rent and Land Revenue in Bengal.' The land tax, which now occupies a subordinate position in the fiscal systems of the leading countries of the world and is relegated, more or less, to local finance, is generally recognized as a real-tax or a tax on landed property, and as such, dissociated from all idea of the economic position of the tax-payer or his total taxable capacity. It is a tax upon land or rather upon its net produce. But though levied upon things, all taxes have to be paid by individual citizens and must come out of their incomes, land and buildings being taken only as indications of capacity to pay. The net income from land or the rental value, or in a few cases, the sale value, is everywhere usually taken as the basis of assessment and the necessary registers and records are compiled. The principle of land revenue recommended by the Taxation Enquiry Committee and adopted by the authors of the Bardoli report, is essentially similar to that underlying the systems of the land tax operating in the other countries of the world. Even a tax on things must satisfy the fundamental requirements of the principles of taxation viz. ability, equality and justice. The standard proposed by the

Taxation Enquiry Committee, consisting in the net income of agriculture, which is exclusive of all costs, including return to enterprise, is quite reasonable; and equally reasonable is the percentage of this, viz., 25 per cent which is proposed as the contribution to be levied by Government. The average 'annual value' must, however, be based upon actual realizations and not upon fancied and fanciful calculations. That was the trouble, as we have shown, in Bardoli, and is inherent in Mr. Anderson's manipulations of figures. For instance, he wonders why no complaint is made against the crop share rent system which does not ensure anything like a full living to the tenant, while fault is found with the Bombay revenue system for the same defect. He says:—"And yet no landlord, no inamdar or Talukdar, has ever denounced this root evil as inhering in that system. Yet if it lies in the Bombay I.r. system, then a fortiori, much more so, it lies in the crop share system which takes its share no matter how small the area held by the tenant." The explanation of this apparent anomaly is simple and it this: the landlord is the owner of his land and charges a price for allowing others to use it while the Government of Bombay is not the owner of the lands of the cultivators and can levy only a tax on incomes and not a rent or a price for the use of land.

A good system of taxation must take full account of the social and the economic condition of the people as it is and must be suited to it. If there are too many poor agriculturists in the community, that is not their own fault entirely, and you can only tax them according to their capacity. Government is not merely a tax-gatherer as Mr. Anderson seems to think, and must fully share the responsibility for the poverty of the cultivating classes and the industrial backwardness of the country generally. Mr. Anderson would tax the underemployed cultivators to make them work more and earn more. Why not suggest this admirable idea to the British cabinet who are confronted with a serious problem of unemployment? Tax the unemployed in Great Britain so that

they will find work, instead of paying them doles as is now being done. There is indeed no charity in taxation, and every citizen must be made to pay, whatever his status, but there is the principle of justice, all the same, which must be honoured. The small holder does not cultivate his field for the sake of fun: he does his utmost in the conditions in which he is placed. We do not propose to refer here to the aspect of taxation relating to Government expenditure, though it has a vital bearing upon the question discussed. Reference must, nevertheless, be made to Mr. Anderson's repeated complaint that the small land holder is being pampered at the cost of the potter, the blacksmith, the trader and so forth, when justice and equality are demanded for him. Now, what taxes do these good friends pay to Government? One is reminded here of Voltaire's story of "the man of forty crowns" related by Seligman.²⁰ Let us put it in the Indian garb. A cultivator who has paid a large part of his produce to Government as a tax, sees the money-lender who has grown fat on the interest wrung out of him, rolling along in a carriage and inquires what amount of tax he has paid. And the reply comes ringing: "I am no landed proprietor like you to pay taxes!" Neither penalization nor pampering, but justice and equalization of tax burdens according to capacity to pay and not the benefit received,—that is what is really needed. And there is no reason why an equitable basis for such distribution could not be found for general application and in the case of holders of agricultural land, in the net income as proposed by the Taxation Committee. The rental basis as worked out by Mr. Anderson, is bound to yield results which are miles away from reality and to prove unjust. Though it is claimed that the land tax is not an income tax, it often does work in practice like the latter. It was stated the other day on the floor of the Legislative Council of Bombay that though lands in certain tracts of the Presidency were admittedly inferior and the cultivators

²⁰ "Essays in Taxation."

there were very poor, they could pay the land tax all right because they earned good wages in the Bombay mills! Let us have all relevant facts and let us scientifically interpret them. Let us not get round facts or juggle with them.

INCOME-TAX IN INDIA

BY

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Mr. James Wilson's financial statement of 1860 marked the commencement of a new chapter in the financial history of the country. This was the first occasion on which a budget was presented to the Indian legislature for discussion. In the course of a forceful address Mr. Wilson surveyed the financial situation in India and outlined the measures which he considered necessary to secure the solvency of the Government. He placed before the Council several proposals for additional taxation, the most important of which were contained in two Bills,—one seeking to impose a License-duty and other an Income-tax.¹ The two measures were supplementary to each other, and their burden was expected to fall on different classes of the population. In the Income-tax Bill there were two rates, namely, a two per cent rate on incomes ranging from Rs. 200 to Rs. 500, and a four per cent rate on incomes above Rs. 500. Of the latter, 3 per cent was to be collected for the provincial treasury and one per cent for local purposes.² No tax was to be levied on incomes below

¹ The latter measure was entitled "An Act for imposing duties on Profits arising from Property, Professions, Trades and Offices."

² Sec. III of the Act ran in part thus : There shall also be collected and paid, under the rules contained in this Act, for the purposes hereinafter mentioned and described as roads, canals, or other reproductive public works, for and in respect of the property and profits mentioned in the said several four schedules respectively, the further yearly duty of one rupee for every hundred rupees of the amount thereof."

Rs. 200. The Finance Member fixed the taxable minimum so low, because, in his opinion the wider the incidence of taxation could be spread, the more just would it be, provided a fair proportion was maintained as to the means of different persons. As the security of the Government, Mr. Wilson argued, extended to all classes, they must all contribute to the public exchequer. He, however, drew a distinction between the wealthy and the less well-to-do. Therefore, incomes up to Rs. 500 were in his scheme to be taxed at a somewhat lower rate.

The Income-tax Bill provided that a separate account should be kept of the collections in respect of the one per cent duty, which should be allocated to the provincial governments to be applied according to their discretion for the construction of roads, canals and other productive works.³

The Bill contained four schedules: No. 1 included incomes from lands and houses; No. 2, incomes from trades and professions⁴; No. 3, incomes from public funds; No. 4, incomes from public

³ Sec. CXCI of Act XXXIII of 1860. In regard to the appropriation of this portion of the tax, Mr. Wilson said, that "the municipalities, where they existed, could have a voice." In defending this provision the Finance Member observed that its object was to help the improvement of localities, and while the charge would be small, the benefit to be derived from such a contribution might be very great. Mr. Wilson cited on this connexion the example of the United States, where a property tax was collected in every State and applied in part to general and in part to local and municipal purposes. (*vide Financial Statement, 1860-61.*)

⁴ Schedule No. 2 consisted of four categories of income, namely, "For and in respect of the annual profits arising to any person residing in India from any kind of property whatever, whether situate in India or elsewhere; and for and in respect of the annual profits arising from any person residing in India from any profession, trade or employment, whether the same shall be carried on in India or elsewhere; and for and in respect of the annual profits arising to any person whatever, whether a subject of Her Majesty or not, although not resident in India, from any property whatever in India, or any profession, trade, or employment carried on within India; and for and in respect of all interest of money, annuities, and other annual profits arising to any person residing in India, and accruing and payable in India to any person, whether residing in India or not, not charged by virtue of any other Schedule of this Act,"

salaries. There were in the Bill some provisions for exemption. All government property, the salaries of military, naval and police officers of the inferior ranks, and Travelling allowances of public officers were excluded from assessment in regard to the tax. Raiyats and other persons actually engaged in the cultivation of lands were not chargeable with the tax unless the full annual value of such lands amounted at least to Rs. 6,000 per annum. Deductions were allowed on account of repairs of houses and on insurance policies. Lastly, the provincial governments were given the power to exempt property used for charitable or religious purposes.

A claim for exemption was put forward on behalf of landholders, especially those under the Permanent Settlement. The Finance Member considered this claim to be groundless; and he decided to adhere to the sound maxim laid down by Lord Cornwallis, the father of the Permanent Settlement, "that all who enjoy the protection of the State must pay for it in accordance with their means." He also dismissed as worthless the demand for exemption made on behalf of the fundholder. The people of Bombay and Madras urged that, as the financial difficulties had been occasioned by the Mutiny which had taken place in Upper India, these provinces ought not to be made liable for its consequences. Mr. Wilson strongly deprecated this attitude. "The bane of India" he observed, "has been these sectional principles and pretensions. Let us see an end to them, and feel that we are all one for weal or for woe."⁵

The Finance Member proposed to make the operation of the Bill as simple as possible. The zemindars would be assessed at one-half of the revenue they paid to the Government as their profits in respect of land. All the safeguards which existed in the Income-tax law of England were inserted in the Indian Income-tax Bill. The general provision for assessing profits was the same as in the English law, namely, that voluntary returns were to be

⁵ Financial Statement, 1860-61.

made by traders to the Collector or the Commissioner⁶ to his satisfaction. All inquisitorial practices were to be prevented,⁷ and the necessity of exhibiting accounts and books was to be avoided, so far as possible. Further, it was provided that the assessment might be made by Panchayats in such areas as the Government might think fit to prescribe. In order to avoid the annoyance of annual assessments, power was given to the Commissioner or Collector to compound for a fixed sum for the whole period of five years or for a shorter period. The Income-tax Bill was read first time on the 4th March, 1860.⁸ The Bill met with a hostile reception at the hands of the public, and petitions from various quarters were presented urging its withdrawal.⁹ But a few persons expressed their approval of the measure. Among these was Maharaja Mahatab Chand of Burdwan. In a letter addressed by him to Mr. James Wilson he expressed his willingness to con-

⁶ The duties imposed by this Act were to be under the direction and management of the Governor General of India in Council, the several Governors, Lieutenant Governors, and Chief Commissioners. The revenue divisions and districts were to be made use of for the purposes of this Act, but the Presidency towns and stations in the Straits Settlement were to be regarded as separate districts. The Collector of land revenue was entrusted with the execution of the Act in the districts. In the Presidency towns, not less than six Commissioners were to be appointed by the provincial Government, of whom not less than two were to be persons not in the service of the Government.

⁷ If, however, the Collector or the Commissioner was dissatisfied with any return, the Act gave him the power to surcharge such person in such sum as he might think fit. (Sec. LIV.)

⁸ Mr. Wilson cited this Bill as an instance of the Government's policy to deal equally with all classes of the Queen's subjects; for it was proposed that the whole public service, from the Governor General down to the youngest civilian, should "contribute by an income-tax, equally levied on all to the exigencies of the State." (*Proceedings of the Legislative Council, 1860.*)

⁹ These emanated, among others, from the British Indian Association, the landholders of Dacca, the clerks employed in the Government and other offices, the landholders and raiyats of Eastern Bengal, the proprietors of permanently settled estates in Bengal. At a meeting of the inhabitants of Madras, presided over by the Sheriff, Mr. H. Nelson, a protest was recorded against the Bill.

tribute his share to the public necessities in the emergency which had occurred and though some other landholders had claimed exemption for the tax, he was emphatic in the opinion that the tax was an equitable one.¹⁰ The Finance Member welcomed this support to his scheme of taxation, but the importance which he seemed to attach to this letter was surely much greater than it deserved. Amongst Europeans, there was at first a tendency to support the measure; but after a time a marked change took place in the opinions of this community.

The second reading was taken up on the 14th April. In the course of the speech delivered by Mr. Wilson on this occasion, he replied to the various objections which had been raised against the Bill. Urging the need for additional resources he argued at great length that the deficiency could not be made good by retrenchment in expenditure. He also pointed out that the substitutes suggested were less suitable for the Income-tax. Another objection to the tax had been embodied in a petition from the clerks in the public and other offices. Their prayer was that in place of charging a uniform rate upon all incomes above the taxable minimum, there should be a graduated scale, beginning with 1 per cent upon lower incomes and going up to 6 per cent upon

¹⁰ This was expressed in a letter to Mr. James Wilson from the Maharaja Bahadur. The following extract from this letter forms interesting reading: "Permit me, Sir, most respectfully to assure you that the immediate cause for this expression of my opinion is the attempt which has been made to oppose your admirable system of taxation—this opposition being founded upon the false assumption that it is a breach of the perpetual settlement.

"No doubt that at the time the settlement was made it was considered as sufficient for the exigencies of those days, but I cannot find anything in the terms of the settlement to convince me that the zemindars of India have for ever been exempted from contributing to assist the Government when they incur unavoidable expenses in preserving property, life, the honour, and all that is dear to them of those very zemindars. Sir, I, as the greatest zemindar of Bengal, disclaim all such exemptions. I am willing to submit most cheerfully to your wise system of taxation which places this unavoidable impost equally on all classes." (*Vide Proceedings of the Legislative Council of India, 1860.*)

higher incomes. To this suggestion Mr. Wilson's reply was that it was "no part of the functions of fiscal arrangements to equalise the condition of men." "The lot of men," said Mr. Wilson, "is fixed by thousands of inscrutable causes, and if a Government were to attempt to produce an equality by distributing the incidence of taxation, it would undertake a task, the end of which must be confusion and disappointment to all concerned. No, Sir, it is our duty to adjust our taxes upon a clear and general principle with as much equality as possible, and then to leave to their full and free course all those general principles of competition and other elements which determine the lot of men. But this at least we may say in favour of an Income-tax which cannot be said in favour of any other tax, that the incidence falls upon each person in the exact proportion to his means."¹¹

Another objection to the measure was the novelty of the tax, it being averred that it was distasteful and repugnant to the feelings of the people. To this Mr. Wilson replied that there was considerable difference of opinion on this question and that some officers had expressed a view favourable to it. Before concluding, he referred to the most cordial and unanimous support which he had received from all officers of the Government with one single exception, namely, Sir Charles Trevelyan, Governor of Madras.¹² Though there were various difficulties, Mr. Wilson did not hesitate to persevere in the measures which, in his opinion were based on "equitable, broad and intelligent principles" and calculated to promote "the lasting good of the country."

The details of the Bill were considered at great length when the Council resolved itself into a Committee. The question of the exemption of landholders under the Permanent Settlement was

¹¹ Mr. Wilson added: "Our financial policy stands upon the firm and immovable basis of strict equality to all alike." (*Proceedings of the Legislative Council of India, 1860.*)

¹² "The opposition in that case," said Mr. Wilson, "has assumed a character which, I will venture to say has no parallel in Indian history."

again discussed. Mr. A. Sconce observed that the clear purport of the Regulation I of 1793, which legalised the settlement of estates in Bengal, was that the re-assessment of these estates was for ever barred, but the law did not guarantee that the landholders should never be called upon to aid in the relief of the future necessities of the Government, by contributing according to their means or incomes.¹³ He argued, further, by referring to the first sentence of Regulation XIX of 1793,¹⁴ that the right to revenue from land was inherent in the State and was not a deduction by way of a tax from the profits of the landholders. He added that the same fact was brought out in a still stronger light in Regulation VIII of 1793, the 75th section of which provided that the assessment should be so regulated as to leave to the proprietors a provision for themselves and their families equal to about ten per cent on the amount of their contribution to the Government. Mr. Wilson quoted extracts from the Minutes of Lord Cornwallis and Sir John Shore to prove that it was not their intention to exempt the zemindars from a scheme of taxation which would reach others. Similarly, the holders of rent-free tenures were not absolutely free from liability to the general taxation of the country.

Several members of the Council expressed the hope that the Income-tax would not be a permanent measure. Mr. H. B. Harrington, Member for the North-Western Provinces, observed that in England almost all those who had written or spoken on the subject, although they all admitted that, in a case of emergency, an Income-tax was perfectly justified and might be unavoidable, were of opinion that it should be given up as soon as

¹³ Mr. Sconce asked the question: Was the revenue assessed a tax in the sense that it was a deduction charged upon the profits or gains of zemindars and diminishing their gains to the same extent, or was it levied in virtue of a substantive and paramount title vested in the State? The law 1793, he thought, left no doubt on this point.

* ¹⁴ It runs as follows: "By the ancient law of the country the ruling power is entitled to a certain proportion of the produce of every *bigha* of land, demandable in money or kind, according to local custom."

possible, and indirect taxation reverted to. The objections to an Income-tax were, Mr. Harrington thought, were aggravated in India by the character of the agency which was employed to carry it out.

The Bill was carefully considered in the Select Committee, and although its essential features remained unchanged, considerable improvements were made in its details.¹⁵ The third reading of the Bill was taken up on the 21st July, 1860. On this occasion, Mr. Wilson expressed his satisfaction at the fact that a Bill containing so many sections as this should have passed the Council not only unchanged in its main provisions, but without a single diversion from first to last having taken place. In concluding the debate on the Bill, Sir Barnes Peacock observed that it had his entire approval. He also concurred in all that had been said by the Finance Member regarding the justice of taxing landholders under the Permanent Settlement.¹⁶

The Bill was passed by the Council on the 24th July, 1860,¹⁷

¹⁵ The modifications were as follows : (1) The original Bill proposed to assess to zemindars under the periodical system of settlement at one-half of the government *jama*; the Select Committee reduced it to one-third. (2) In the matter of double taxation, it was decided to exempt incomes from foreign funds, except so far as such incomes might be brought into India. (3) The same rule was applied to income derived from other property, such as lands, houses, or investments in England or any foreign country. (4) Pensions of persons resident in India and drawn from the Secretary of State were exempted. (5) With regard to commercial profits, the same rule was to be pursued as nearly as possible. (6) All officers in the Army and Navy were to be charged, whose incomes and emoluments were not less than those of a Captain in the Army.

¹⁶ With reference to the assertion which had been made that his opinion now was different from that expressed in a previous Minute, the Chief Justice explained that his opinions on the two occasions were entirely consistent with each other. The Minute was written on the subject of taxing zemindars and zemindars alone for purpose of maintaining chaukidars. This was an exceptional measure, and the government would be violating the promise they had made at the time of the Permanent Settlement. The Income-tax was a general tax affecting the whole country. (*Vide Proceedings of the Legislative Council of India, 1860.*)

¹⁷ In such cases, every Panchayat was to consist of not less than three persons appointed by the Collector.

and it received the assent of the Governor-General on the same day. It was to continue in force for a period of four years. Some minor modifications were introduced by Act XXXIX of 1860¹⁸ with the object of remedying the defects which had come to light since the Income Tax Act. The law as amended, came into force in September, 1860. The yield during the few months of the financial year 1860-61 was rather small. In the following year, Mr. Samuel Laing, the successor-in-office of Mr. Wilson described the income-tax as "a failure." He admitted that it laid down a great and just principle, namely, that the capital and the trade of India, as well as her land, should contribute, in a fair proportion, towards the support of the State. From that principle no Government, he believed, would ever recede. He thought so far as fixed and certain incomes were concerned, which could be ascertained without paying into peoples' private affairs. There was no fairer mode of levying a tax than by a percentage on these amounts. But as for trading and professional incomes, or incomes which could not be ascertained without calling for complicate returns and instituting private enquiries, some fixed scale of assessment under a graduated License Tax, was, in his view, a better mode of applying the principle. He held the view that it was a fatal objection to the Income-tax that it conduced to extensive demoralisation by holding out a premium to fraud. Besides, its inevitable tendency was to embark the Government in a constant struggle with a large section of its subjects,—“a struggle carried on by vexatious interference and inquisition on the one hand, and by evasion and chicanery on the other. Lastly, he was of the opinion that India was no place for such a tax going as low as £20 a year. But the financial condition of the country did not permit him to amend this portion of the tax on that occasion, although he hoped before long to be able to do so.

¹⁸ This Bill was sponsored, by Sir Bastle Fere in the absence, owing to illness, of Mr. James Wilson.

A few months later a temporary Act was passed continuing the then existing assessments under the Income-tax for one year. At the time of the presentation of the Budget for 1862-63, Mr. Laing expressed the opinion that if the income-tax were being imposed for the first time, he should have had no hesitation in recommending that it should be converted into a tax on the principle of Mr. Harrington's Bill, and probably made over to the provincial governments. He said further that, if the income-tax were to be perpetual, he would rather see it transformed into a local tax than continued as an Imperial tax. But the one paramount consideration was whether the Income-tax was to be looked upon as a permanent or as a temporary measure. On this point Mr. Laing himself had no doubt. The tax had been imposed for a limited term and it was necessary at all hazards to keep faith with the people of India by not prolonging it. He said that while the abolition of the tax was the great object of his endeavours, it was not possible to carry it out on this occasion, as only a small surplus was anticipated in the Budget. But the Finance Member proposed certain measures which were calculated to alleviate materially the pressure of the tax. In the first place, the temporary Act of the previous year was renewed dispensing with all further returns and enquiries for the next three years. Secondly, all incomes between Rs. 500 and Rs. 200 were exempted, not on the ground that they were poor,¹⁹ but on two other grounds, namely, first that while the number of persons who paid the lower rate of 2 per cent was two-thirds of the total number of Income-tax payers, the money they paid amounted to only one-fifth of the whole proceeds; and secondly, that the cost of collection of this portion of the tax was

¹⁹ Mr. Laing had no sympathy with any socialistic legislation which would place taxation exclusively on the rich. "On the contrary," he said, "I believe that poor, as well as rich, and often even more than rich, are interested in the support of the State and the maintenance of social order, and that the middle and working classes are those who, in the long run, suffer most from the seductions of the political demagogues and from the sickly sentimentality of injudicious philanthropists."

very large, which might be taken as an index to the annoyance and oppression it caused.²⁰ As the opposition to the Income-tax had emanated chiefly from Europeans, Mr. Laing made an earnest appeal to their intelligence and public spirit. "I do not believe," he said, "in 'ignorant impatience of taxation' on the part of educated gentlemen like the great majority of official and non-official Europeans in India, when they are fairly dealt with. On the contrary, I am convinced that, however strongly they may feel, the natural desire of everybody to escape his own peculiar burden, they will be satisfied with the assurance that the Government is sincerely desirous not to perpetuate the Income-tax, and with the pledge given for the future by the remissions already made."

From the 31st July, 1863, the four per cent rate was reduced to three per cent. On the 31st July, 1865, the provisions of the Income Tax Act of 1860, expired and the tax was not renewed.²¹

The figures relating to the proceeds of the income tax and the persons assessed to it are interesting. In the first financial year of its imposition,²² the collections amounted to £1,100,000. In the four following years, the collections were £2,000,000 (with the Income-tax), £1,900,000, £1,500,000, and £1,300,000 respectively. The net receipts from the different provinces in the last year of enforcement of the Income-tax were as follows: Bengal, £385,005; North-Western Provinces £169,059; Oudh, £29,754;

²⁰ "A tax," said Mr. Laing, "which affects 600,100 persons, to produce £350,000 gross, of which at least £100,000 is absorbed by cost of collection, is condemned by the mere statement of figures." "But the numbers alone," he added, "do not adequately represent the real relief, for it is beyond all question that men of property and intelligence can defend themselves against mistakes or attempts at extortion by native officials, far better than the class who just come within the limit of the 2 per cent assessment." (*Financial Statement, 1862-63.*)

²¹ The tax was in force during only one-quarter of the year 1865-66, and the receipts amounted to £671,900.

²² In the North-Western Provinces the tax was collected during eight months of the financial years, namely September, 1860 to April, 1861.

Punjab, £52,280; Central Provinces, £29,868; Hyderabad Assigned Districts, £1,248; British Burma, £13,095; Madras £147,867; Bombay, £337,250. Bengal was thus the largest contributor among the provinces, with Bombay as a good second.⁸³

²³ In the province of Bengal, the number of persons assessed in 1860-61 and 1861-62 was a little over 250,000; and the amount realised in these years were £187,786 and £635,585 respectively. In 1862-63, on the passing of the Act exempting incomes under £50, the number of persons assessed fell to 64,677 while the receipts amounted to £629,197. In the two following years, the persons paying the tax numbered 59,927 and 53,773 respectively, and the receipts were £478,392 and £385,905. The total receipts during the four years in Bengal amounted to about a million and a half pounds sterling. The cost of collecting the tax was about 3½ per cent in Calcutta and the suburbs, and nearly 9 per cent in the remainder of the provinces, on the sum realised. "The moral obligation to furnish trustworthy statements was generally , and only 6 per cent of the payers were taxed on the returns made by themselves, which the amount of surcharge was 300 per cent."

"The assessment in Oudh during the year amounted to £24,442, and the collections, including arrears of former years, to £29,754. The charges were only £288 or less than 1 per cent. The receipts in the Punjab were £52,280 or £9,995 less than in the previous year. The number of persons taxed in the Central Provinces was about 5000 and 98 per cent of the demand realised during the year. The total amount collected in 1864-65 was £29,868, as compared with £28,712 in 1863-64. In the Hyderabad Assigned Districts the receipts were £1,248. In British Burma they amounted to £13,095. Many of the Chinese population withdrew to the Straits Settlement in order to avoid the tax.

In Madras, the proceeds of the income-tax amounted to £147,867 showing a falling off of £17,093. In Bombay, the assessed taxes amounted to £337,250 as compared with £374,500 in the preceding years."

"The Income-Tax Act expired on the 31st July, 1865, and was therefore, in force only one-quarter of the year under report, during which the receipts amounted to £671,900."

A report submitted by the Income-tax Commissioners, on the working of the Act for four years in the island of Bombay, showed that, at any rate in the Presidency towns, this was by no means a difficult mode of taxation. The assessment in the first year amounted to only £925,000, when the rate was at 4 per cent; but in 1864-65, although the tax had in the meantime been reduced to 3 per cent, the realisations amounted to only about nearly four times of that amount, namely, £240,000. The prosperity of the community in the latter year

On the occasion of the presentation of the Budget for 1865-66, Sir Charles Trevelyan, then Finance Member, described the Income-tax as "a potent but imperfect fiscal machine," which should be regarded as "the great financial reserve of the country." It was laid on the shelf "complete in all its gear, ready to be reimposed in case of any new emergency."²⁴

It was not long before such an emergency arose. No sooner had the Income-tax expired than its resuscitation in another form became necessary. In 1867, the financial difficulties of the Government of India compelled them to impose a License-tax. This tax having lasted for a year, Mr. Massey resisted all demand for its repeal, and continued it in an improved form as a Certificate-tax. But this change did not solve the financial difficulty; and in 1869, another deficit, the fourth in succession, was apprehended. Sir Richard Temple, therefore, proposed to convert the Certificate-tax into an Income-tax. In explaining the provisions of the Bill, he observed that as the principle of the Certificate-tax was in fact that of an Income-tax on particular classes, the substitution of an Income-tax proper would practically not much alter the demand on those who paid the Certificate-tax. The effect of the change would be virtually to extend the tax to those classes which had previously been exempt. The tax would thus apply equally and justly to all classes alike without any distinction. The principle of rough assessment, avoiding individual assessments and inquisitorial processes, was to be kept up. The mean incidence of the Certificate-tax, namely, 1 per cent on profits, was also to be maintained. The minimum limit of income—Rs. 500 per annum was to be observed in the case of the Income-tax. Officers of the Government drawing salaries below Rs. 1,000 and above Rs. 500

no doubt contributed largely to this result, but a great deal was due to the improved means of ascertaining what was really the amount assessable, and to the tax-payers having better acquainted with the obligations imposed upon them. (*Moral and Material Progress Report, 1865-66.*)

²⁴ Financial Statement, 1869-70,

would be taxed at 1 per cent. It was calculated that not more than 150,000 persons would be assessed to this Income-tax, or in other words, the tax would hardly touch one in a thousand. "In short," observed Sir Richard Temple, "our hope is that by eschewing change in respect to those who now pay a direct tax; by refraining from demand for returns; by removing the measure from any contact with the poorer and more ignorant classes, we shall keep it comparatively free from much of the unpopularity which attached to the Income-tax and, as it were, rob the measure of its sting."²⁵

In answer to the suggestion that some other means might have been devised for improving the resources of the Government, Sir Richard Temple said that they had over and over again thought of every tax that had been suggested, and found that some insuperable economic objection or other was apparent in the case of each one of them, the Income-tax alone remaining comparatively free from objection, "as hampering no particular trade and fettering no particular industry." Besides, experience had shown that they could not afford altogether to dispense with direct taxation. He, however, refused to accept the suggestion to raise the rate to 2 per cent, because he thought that the 1 per cent rate was sufficient and that it was not desirable to trench more than was absolutely necessary upon the chief fiscal reserve of the Government. The Finance Member appealed to the fundholder, the landholder, the houseowner, and the European community for aid in bearing the burden of the tax, and concluded with the expression of the hope that everybody, European or Indian, would "appreciate the justice of taxing all classes without exception."²⁶

²⁵ Financial Statement, 1869-70.

²⁶ "The landholders," he said, "especially the zemindars under the Permanent Settlement, convinced from long experience of the inviolable faith kept with them by the State, cannot regard this measure with any distrust, but will submit to the law, if it shall be enacted, with that loyalty which befits gentlemen of accumulating wealth and liberal education, recollecting that the question of their

Though some objections were made against the Bill, it was passed.²⁷

Persons subject to the Income-tax of 1869-70 were divided into five grades. Grade I, being the lowest, included those whose annual incomes ranged from Rs. 500 to Rs. 1,000, while grade V, the highest, consisted of those whose incomes amounted to Rs. 100,000 or more a year.²⁸

The Income-tax imposed by Act IX of 1869 came into force from the 1st April of that year. It was levied at the rate of 1 per cent on all incomes and profits from Rs. 500 per annum and upwards. It fell on the landed classes as much as on other classes of the population. The rate was subsequently enhanced by Act XXIII of 1869 to $1\frac{1}{2}$ per cent. The financial results of the Acts of 1869 were satisfactory.

In 1870 a deficit of a million and a third becoming distinctly apparent, recourse to further taxation became unavoidable. The Finance Member proposed to raise the Income-tax to 6 pies in the rupee (or about $3\frac{1}{2}$ per cent). On this occasion, the rate was not fixed, as heretofore, as a percentage of the incomes. The system of rough assessment by classes was dispensed with on the ground that

liability was settled long ago, and that in each cycle of years the progress of Bengal—with its staple profitable exported to England, its net work of water communication, its patient and thriving peasantry enhances their debt of gratitude towards the Government under whose sway their property has been vastly benefited.”

²⁷ The Maharaja of Jaipur, a member of the Legislative Council, said that “in his opinion, of all modes of direct taxation the income-tax was most unsuited to this country, as it was most opposed to the feelings of the people.” This opinion of a ruler of an Indian State, was quoted in 1873 with approval by Lord Northbrook as that of a friendly neighbour, who and whose subjects were not affected by the tax.

²⁸ The total number of persons assessed to the income-tax in Bengal in 1869 was 182,779, of whom 141,747 were in the first class, and only 129 in the fifth. The total collections in this province amounted to £373,146, about £107-00 being derived from the lowest, and about £62,000 from the highest incomes. The collections in Calcutta alone amounted to £102,000.

it worked well when the rate of duty was low; it would not work satisfactorily with a higher rate. Individual assessments were now substituted, the submission of compulsory returns of incomes by tax-payers became essential. As to the duration of the new income-tax, the Finance Member declined to make any promise whatsoever. He, however, expressed the hope that the tax would not last beyond that year at the rate of 6 pies in the rupee, but he made it clear that the realisation of such hope would be dependent on circumstances.

The probable yield of the tax was estimated at Rs. 2,180,000, but the actual revenue from this source fell somewhat short of the expected amount. The Income-tax of 1870-71 did not thus yield a sum commensurate with the increase in the rate. In Bengal, for instance, there was a decrease in the number of assesses as compared with that of the previous year, though the result was favourable in comparison with other years. There is no doubt that the people had been over-taxed under the Acts of 1869, and there was naturally a disposition towards leniency of assessment in 1870-71.²⁹ Another cause of the falling off was a deterioration in the circumstances of some of the tax-paying classes. A third

²⁹ Mr. A. Money wrote in his Minute on the Income-tax Administration Report for 1870-71: "There was a belief at the beginning of the year that the tax was the result of a temporary pressure for money, and would cease with the year. The assessors seem generally to have held this opinion, and to have impressed it on the people. Partly for this reason, partly because to dispute a small assessment involved more trouble and expense than the demand was worth, a very large number of assesses paid without objection assessments to which they were not legally liable . . . Many a man with an income under 500 rupees, could afford to pay 6 rupees, that is, could pay that amount without any great privation, and thousands did so pay on no other grounds. When, however, the supposed possession of an income of 500 rupees produced a demand of Rs. 19-8 under the tax of 1870-71, all those who were really not liable came forward with objections and got exempted." And further: "The disclosure of the large number of illegal assessments made during the previous year, the outcry in the press when some such cases which occurred near Calcutta came to light, the fear of blame, the trouble consequent on a second enquiry into a case to which the Government's or the Board's attention had been called, the honest wish not

cause was perhaps to be found in a certain amount of passive resistance engendered by the unpopularity of the tax.

The enforcement of the provisions of the Income-tax Acts of 1869 and 1870 led to many cases of oppression.³⁰ In Bengal alone, relief outside the law had to be given in 994 cases in 1869-70 and in 478 in 1870-71. The general view even among officials was that the rate was too high and that the limit of exemption was too low.

The Government of the North-Western Provinces thought that the assessable income of Rs. 500 was a source of maladministration.³¹ "No one," they said, "with an income of less than Rs. 1,000 ever keeps regular accounts. There are no data on which assessments on the lower incomes can be made by subordinates, or controlled, had they the time to control them, by their superiors." Mr. A. Money, member of the Bengal Board of Revenue, in charge of Income-tax, was even more emphatic. In his Minute on the Income-tax Administration Report for 1870-71, he wrote, "At the bottom of the misery and pain in these cases, of

to repeat the errors of the previous year, the heavy incidence of the tax, so heavy that on income a little over 500 rupees, its operation was necessarily attended with suffering and privation, all these cases combined to turn the scale during 1870-71, generally in favour of the assessee. I do not think this is to be regretted. The feeling against the tax at the beginning of the year was so strong that I am confident it is better for the Government in a political sense, to have realised less than it was entitled to at the full rate, than to have given occasion for any increase of that feeling."

³⁰ The Finance Member, however, thought that the number of cases of oppression was small. (*Vide Financial Statement, 1871-72.*)

³¹ Mr. Money was not sure whether the word 'oppression' which was vague could be used with regard to these cases of hardship, but he gave instances of gross injustice caused by the operation of the Act. He added: "Under the operation of the law, the magistrates became blind instruments of punishments. If, then, by cases of oppression are meant cases of wrong assessment, in which, either with or without the magistrate's assistance, the demand, or the realisable portion of it, has been collected. It is clear from the figures I have already given that such cases under the operation of the Acts of 1869 were very numerous." (*Parliamentary Paper No. 289 of 1872.*)

which there were hundreds, lie two or three facts; one, the inexpediency, as I take it, of extending the tax to incomes so small, that if, in regard to them, under such a rate as $3\frac{1}{2}$ per cent the assessor makes a mistake, the result is something very like ruin to the assessee; another, the error of making over the power of punishment to a court which cannot look at the merits." The Government of Bengal concurred in this view.

The actual work of assessment was not in many cases done at all well. In Bengal, the operation of the succeeding year showed that a very large number of persons were assessed under the Acts of 1869 who were not assessable. Sir George Campbell, in a Minute on the Income-Tax Report for 1869-70, pointed out certain startling results. For instance, there were no lawyers in the highest class, while the next highest class included 58 ministers of religion, 17 legal practitioners and no medical men, which led the Lieutenant-Governor to remark sarcastically that "religion was more lucrative than law after all."³² But the most surprising fact was that the most numerous class of Income-tax payers were cultivators, of whom no less than 34,375 were assessed to the tax in Bengal, as distinguished from 25,483 proprietors and sub-proprietors. Undoubtedly, the cultivators were over-assessed as compared with the other classes, and Sir George Campbell was perfectly justified in remarking that he should have expected that "in this country of various small holdings, cultivators would have been almost entirely free of Income-tax instead of being the most numerous class assessed."³³

The misery of the poor man was increased in the ignorant parts of the country where the landholder's burden was transferred to the shoulders of the raivat. The mode of assessment was also very unsatisfactory. Under Mr. Wilson's Act, every man was called upon by a general notification to give in returns of his in-

³² Parliamentary Paper, 289 of 1872.

³³ "There seem," observed Sir George Campbell, rightly, "to lead to a singular inversion of our preconceived ideas,"

come. If he failed to do so, he could not complain of the subsequent action taken against him. But under the Income-tax Acts of 1869 and 1870 the initiative rested with the Government office, and it was scarcely equitable that, owing to the Collector's omission to serve a notice during the previous year, a man should at one and the same time be called upon to pay the entire tax for that year, plus the tax for the current year. Such delay not only deprived the taxpayer of his legal right to pay in instalments but the cumulative demand invested it with additional severity.

Another defect of the system was to be found in the great disparity and variation in the assessment of some districts. The yield was not largest in the districts around Calcutta, which had had the greatest advantages in way of roads, railways, commerce, education and all that was known as civilisation, but in the inaccessible and non-regulation district of Manbhum. The arbitrary character of the assessments was further proved by the fact that, of 64,407 objections, 36,489, or fully three-fourths, were allowed.

There was an even more serious evil. The changes from year to year were, to use the words of a high official, "like the effects of a kaleidoscope." At each turn of the legislative machine, he observed, the districts altered their relative positions, and occupied new places, according to the character and proclivities of the assessors or collectors whom chance or the Government might give them. The Government of the North-Western Provinces³⁴ pointed out that the frequent.

³⁴ When the opinions of the provincial rulers and of the other officers of the Government were invited on the nature of the Income-tax, the Lieutenant-Governor of the North-Western Provinces wrote that he did not object to the main principle of the Income-tax. "But" he added "it may be questioned whether the tax should be . . . resorted to as a means of squaring the accounts of the year, its rate and reach varying with the amount of the annual deficit or the prospects of the coming revenue. It would be wise and more statesmanlike, in dealing with a people so impatient of inquisition, so suspicious of change, and so difficult to reach by our explanations, to make the tax precise and unvarying both in its reach and in conditions of its assessment."

In 1871 the financial position of the Government having improved, it was decided to lower the rate of assessment from 6 pies in the rupee (or $3\frac{1}{2}$ per cent) to 2 pies in the rupee (or a fraction over 1 per cent) and to raise the minimum income liable to assessment to Rs. 750. Sir Richard Temple explained to the Council that the retention of this small tax was indispensable, as without it they would have to produce a budget with a deficit. He also pointed out that the rate to which the tax was now reduced was the lowest at which it had ever been levied in India, and indeed the lowest at which it could be levied, if retained at all. The Finance Member expressed his satisfaction at being able to relieve, by the reduction, 240,000 persons theretofore taxed. It had been

The Lieutenant-Governor of the Punjab wrote in 1872, that in his opinion, the Income-tax in its modified form, did not give rise to any general discontent in the province. It fell on a very small percentage of the population. The agricultural classes were practically exempted altogether, the tax being paid by the inhabitants of cities and officials in the service of the Government. The collection of the tax had been carefully supervised, and the number of complaints were few. The novelty of the tax appeared to the Lieutenant-Governor to be the chief reason for any dislike felt to it, but this feeling was growing less year by year. Several officers had pointed out that the uncertainty of the rate at which Income-tax was levied and the frequent changes in the administration procedure were further reasons for the dislike to it.

The Offg. Collector of Ghazipur wrote: "The chief cause why the tax is at the same time unproductive, unpopular and unequal in the very high rate of the minimum assessment and the defective nature of the means available to us for ascertaining actual incomes The tax is disliked not only by the persons who ultimately pay it, but also by those who after assessment obtain remission at least with considerable trouble, and also by those who are actually never assessed but who expend considerable sums in fees to *pargana* and village accountants and other subordinate officials to save themselves from being mentioned." The Collector of Azamgarh wrote: "The task of assessing the Income-tax, therefore, cannot be looked upon in any other light than that of an odious one; for while highly invidious to the people, it is equally unsatisfactory to oneself The more I see of the working of the Income-tax year by year the more I feel convinced of the utter hopelessness of expecting to ascertain with any degree of accuracy what a native income is." (*Vide Parliamentary Paper No. 289 of 1872.*)

in respect of the small incomes below Rs. 750 that complaints of over-assessment, or exaction, or other vexation, had mainly arisen, and the pressure of the tax had fallen heavily upon these small incomes.³⁵ He added that the policy of the Government with regard to the Income and License taxes had been to extend from time to time the exemption more and more among the poorer classes liable to assessment. No limit of duration was fixed in the Bill which was passed to give effect to these proposals.

In the Legislative Council, individual members of the Government of India expressed their own views on the question whether the tax should be permanently maintained or not, and a great deal of divergence was observable in them. The Government collectively, however, abstained from expressing any opinion on the subject. Lord Mayo refused to be drawn into the controversy. But he felt it his duty to record his opinion that a feeling of discontent existed among every class, European as well as Indian, on account of the constant increase of taxation which had been going on for years, and expressed his belief that "the continuance of that feeling was a political danger, the magnitude of which could hardly be over-estimated." The reduction in the rate and the raising of the taxable minimum failed to give satisfaction to the members of the Council, who urged the entire abolition of the tax. The Income-tax Bill was however passed in spite of strong opposition.³⁶

In the years 1871—4, the Indian Income-tax engaged the attention of the Select Committee of Parliament, when considerable divergence of opinion was exhibited on the question. Three former Finance Members of India expressed themselves as strongly opposed to the tax. Lord Northbrook, who was shortly

³⁵ Sir Richard Temple added that while the rate remained low as in 1867-68 and 1868-69, these complaints were not perceptible at all or were much less rife; and no doubt the inherent difficulties of the case had been aggravated by the increased rates.

³⁶ *Proceedings of the Legislative Council, dated the 17th March, 1871.*

afterwards to be sent out to India as its Viceroy, also spoke strongly against the tax.

In the budget estimates for 1872-73 a small deficit was apprehended if the Income-tax was to be given up. It was decided, therefore, to continue the tax for a year longer as a provisional arrangement. It was understood that the question of abandoning or maintaining it as an integral part of the financial system would be considered by the Government after the arrival in India of the newly-appointed Governor General. The taxable minimum was now raised to Rs. 1,000. Thus the Income-tax lost a part of its objectionable character by being confined to comparatively high incomes. The Income-tax for 1872-73 was estimated to produce a gross return of £585,100.³⁷

In 1873, Lord Northbrook, after reviewing the entire financial situation of the country found that without re-imposing the income-tax there would probably be a surplus of from £200,000 to £300,000, in the budget of 1873-74. He took into account the opinion of Europeans as well as Indians, both official and non-official, and came to the conclusion that the re-imposition of the Income-tax was unnecessary and inexpedient.³⁸ He thought that the opportunity which the prosperous condition of the finances afforded at this time of reducing the pressure of taxation was a great political advantage, and that no single act could produce so salutary a political effect over the whole of India as the announcement that the Government had determined not to re-impose the Income-tax.³⁹ A Resolution was, therefore, published announcing the withdrawal of the Income-tax. The Finance Member, Sir Richard Temple, however, wrote an elaborate Minute intimating his dissent from the Resolution. He expressed the opinion that the Income-tax was

³⁷ This was distributed as follows: Land, £160,674; houses, £15,211; employment, private, £34,876; employment, Government, £108,567; commerce, 237,750; funds, £28,796; miscellaneous, £9,226.

³⁸ Minute of the Governor-General, dated the 14th April, 1873.

³⁹ *Ibid.*

just as suited to India as to England and that he could not contemplate its remission until the Government was able to produce a budget estimate with a surplus of one million and a half at the least. He objected to the relinquishment of the tax on the ground that it would be injurious to the stability of the finances, to the administration of the public service, and to the welfare of the general community. With regard to the last point he observed: "As recently levied, it is essentially the one tax which falls on the rich. It helped in some degree to redress the balance which, in India, inclines too much in favour of the richer and more influential classes, and too much against the poor. It also helped to distribute the burden of taxation between the various industries, interests and classes in the country. Its relinquishment deprives the Government of the means of mitigating taxation which falls unduly upon the poor, or which either injures trade and industry, or might at any moment prove detrimental to those interests."⁴⁰

Mr. B. H. Ellis, another member of the Executive Council of the Governor General, also wrote a Minute expressing in emphatic terms his dissent from the Resolution. He held the view that an Income-tax, levied at a light rate, and affecting only the upper classes, was specially suited to India, and its maintenance was a source of great financial strength. He concluded his Minute with these words: "I repeat, then, that the Income-tax has been removed without due cause, and that its removal has weakened the financial resources of the country. We have, moreover, lost the opportunity of so dealing with the salt duties as to effect a great administrative and fiscal reform by getting rid of the customs line in British

⁴⁰ Minute, dated the 2nd April, 1873.

Sir Richard Temple concluded his Minute with these words: "I maintain firstly, that we cannot financially afford to dispense with the tax; secondly that if we could afford any remission of taxation, preference ought to be given to other imposts before the Income-tax; and, thirdly, that, even if these imposts had been reduced or remitted, still the Income-tax ought to be retained, with a limited incidence and at a light rate, as a part of the ordinary fiscal system of India."

territory, and at the same time giving relief to the poorer classes of a large part of India, and placing the finances on a sounder basis by furnishing an additional reserve in time of need. We have crippled our means of aiding the Local Governments I regret greatly the course that has been resolved on, and I beg to record my protest against it."⁴¹ On the other hand, Major-General H. W. Norman supported the decision of the Governor-General and urged seven reasons in favour of it. With regard to the argument that the Income-tax alone of all taxes reached the rich, he thought that this was not strictly or entirely true. "The tax," he wrote, "pressed on many who are not rich, and many who are well-to-do are affected already by other taxes. The landholder, for instance, pays the land tax, and the European who, however, is rarely rich, pays customs duty on very many necessary articles of consumption. So far, however, as the abolition of the tax exempts the rich native traders from taxation, I regret it and if any substitution could be devised as respects this class, it would be advantageous."⁴² It would be difficult, indeed, to admire the wisdom of such a policy of racial discrimination in the matter of taxation.

Five years later, direct taxation was again levied, this time in the form of License-taxes. These taxes lasted till the year 1885-86. During the period of their continuance these were often assailed as unsatisfactory and unfair in incidence. In 1880, for instance, when the License Act Amendment Bill was before the Legislative Council, Maharaja Jatindra Mohan Tagore said that he failed to understand why the burden of the direct tax should not be distributed over all sections of the community. Sir Alexander Arbuthnot also spoke of the incompleteness and inequality involved in the License-tax and pointed that the real remedy lay in reverting to a light Income-tax with a high taxable

⁴¹ Minute, dated the 31st March, 1873.

Lord Napier of Magdala was also in favour of the retention of the tax.

⁴² Minute, dated the 2nd April, 1873. Mr. S. Bayley, afterwards Lieutenant Governor of Bengal sided with the Governor General.

minimum. The Governor General said that no form of direct taxation short of Income-tax could be wholly free from objection, and gave the broad hint that in the event of a deficit occurring in the budget in future, an Income-tax would be levied. It was not long before such an eventuality occurred.

In 1886, the Government of India was faced with a very difficult financial situation, owing chiefly to a considerable increase in military expenditure and a rapid and continuous fall in the rate of exchange. Four courses were now open to the Government which might enable it to balance income and expenditure. The first was economy. Although the Finance Member, Sir Auckland Colvin did not lightly set aside this possibility, yet he felt that there were practical difficulties in the way of enforcing it. The second course was borrowing.⁴³ This was rejected on the ground that the best way out of pecuniary difficulties was not to add to them. To call upon the Provincial Governments for aid was the third alternative. While not entirely rejecting this alternative, the Finance Member thought that as this was the fourth year of the Provincial Contracts, such a step was hardly desirable. Besides, what was needed was as much an increase of existing revenues as a repartition of those already available. The last resource thus was additional taxation. This, again, gave rise to the question of direct *versus* indirect taxation. In the opinion of the Finance Member, resort to indirect taxation was undesirable. An addition to salt duty could not be thought of as it would increase the burden of the poorest sections of the community. The re-imposition of the import duties had been urged in some quarters. But Sir Auckland Colvin rejected the proposal on the ground that, while

⁴³ In this connexion, Sir Auckland Colvin remarked: "We have been told that, if economy is a good dog, borrowing is better. A passed master in the art of meeting pecuniary obligations, whose authority as we know, is unimpeachable, was obliged at last to confess that he could get no remedy against this consumption of the purse; borrowing only lingers and lingers it out, but the disease is incurable." (*Proceedings of the Governor General's Legislative Council*, 4th January, 1886.)

such measure would be popular with the class on whom the burden would not fall, it would add to the burden of the masses of the people, who were the chief consumers, and whose income at the best was "barely sufficient to afford them the sustenance necessary to support life, living as they did upon the barest necessities of life."⁴⁴

After carefully considering the various aspects of the question, the Government came to the conclusion that additional taxation was inevitable and that such taxation should be direct. It is interesting to note in this connexion that this decision of the Government had behind it the support of the Indian National Congress which, during its first session held in 1885, had passed a resolution recommending, in default of other expedients, the extension of the License tax to those members of the community who had hitherto enjoyed an undeserved immunity from the visit of the tax-collector.⁴⁵ The Government had also by this time become fully convinced that those classes in the country which derived the greatest benefit from the administration by reason of the security afforded by it contributed the least towards its maintenance. It was strange that the upper and the upper middle classes enjoyed the greatest immunity from taxation. Sir Auck-

⁴⁴ "It is always popular," added the Finance Member, "to pass obligations on to other people; but it is a kind of popularity which no Government anxious for the equitable adjustment of the burdens to be imposed upon tax-payers can possibly wish to acquire. Nor would it be possible to escape the difficulty of the local industries." In the concluding portion of his speech, Sir Auckland Colvin justified the imposition of the tax. He said: "In the necessities of the time; in the interests of all classes of the community; in the present incidence of our Indian taxation; in the legitimate and necessary result of the financial policy pursued by our predecessors; in the admissions of those who oppose an income-tax will be found the justification of the measure which I have now the honour to ask your Lordship to allow me to introduce." (*Vide Proceedings of the Governor General's Legislative Council, 1886.*)

⁴⁵ This attitude of the Indian National Congress, composed though it was of men belonging mainly to the learned professions, sufficiently justified its claim to represent the entire Indian population including the poorest classes.

land Colvin rightly remarked: "Efforts, have, indeed, at various times, been made to remedy this scandal, for scandal it is of the greatest magnitude, when the poorest are called upon to pay heavily for the support of the Government, and the wealthier classes are exempted; but from one cause or another the measure has not been carried out, except for short and broken periods of time."

There was another important point which arose in this connexion. As a result of the fiscal policy under which a large portion of the indirect revenues ceased, a permanent system of direct taxation proved to be unavoidable. The direct taxation which the Government had imposed in previous years was in a very incomplete form and was open to severe criticism. The License-tax was unsatisfactory in many respects. Besides, its yield was insufficient for the needs of the Government. As it was neither desirable nor possible to do away with direct taxation altogether, it now became absolutely necessary to place the system of direct taxation on an equitable as well as a remunerative basis.

The Income-tax Bill which the Finance Member introduced in 1886 was in many respects different from similar measures which had previously been placed on the legislative anvil. As the Finance Member pointed out it was built upon the foundations laid nine years ago for the License-tax, and was not an introduction, but an enlargement,—an extension and equalisation,—of direct taxation. It left the then existing License-tax undisturbed in the case of the lowest classes of income, except so far as it added professions and offices to trades and dealings.

The combined scheme was expected to affect not more than 300,000 persons, officials included, out of the whole population of British India. One of the main features of the tax was that incomes of Rs. 500 a year or less were exempt, while those between Rs. 500 and Rs. 2,000 were assessed at less than the full rate. The principle of graduation was thus recognised, in however imperfect a form, but the Government was not prepared to give effect to it to any appreciable extent. Incomes were placed by

the Act in four categories, salaries and pensions in Part I, profits of companies in Part II, interest on securities in Part III, and income from other sources in Part IV. Incomes in parts I and III were to pay five pies⁴⁶ in the rupee if they amounted to Rs. 2,000 or more a year, otherwise four pies⁴⁷ in the rupee.⁴⁸ In the case of Part II the rate was five pies in the rupee throughout. In Part IV the rate was five pies per rupee for incomes of Rs. 2,000 or more; between that amount and the untaxed minimum, there was a graded scale,—incomes up to Rs. 750 paying Rs. 10, those above Rs. 750 and up to Rs. 1,000 paying Rs. 15, and so on up to a tax of Rs. 42 for incomes between Rs. 1,750 and Rs. 2,000.⁴⁹ Incomes derived from land were excluded from operation of the Bill.⁵⁰ Most of the objections which had been urged against the previous Income-tax Bills were eliminated from this Bill.

The Bill did not meet with any serious opposition in the legislature. It was accepted as a necessity, but nevertheless was criticised from various standpoints by the members of the Council. Dr. (afterwards Sir William) Hunter said that while an Income-tax was equitable in its character, it might prove most oppressive in its incidence. He urged the deduction of payments for life insurance or deferred annuities from the assessable income, which was particularly necessary in the case of professional men whose brains were their “sole stock-in-trade.” Mr. Richard Steel, a representative of the European mercantile community, thought that direct taxation was less suited to the country than indirect, but as

⁴⁶ That is to say, approximately 2½ per cent.

⁴⁷ Or approximately 2 per cent.

⁴⁸ The Finance Member following the precedent of 1870 thought it more convenient for purposes of calculation and assessment, to take so many pies in the rupee rather than a percentage.

⁴⁹ Moral and Material Progress (Decennial) Report, 1901-2.

⁵⁰ This was done because the Income-tax was really an expansion of the License taxes. When the License taxes were levied in 1877-78 on the trading and professional classes, Cesses were simultaneously levied on the landed classes.

the choice lay between the License-tax and the Income-tax, he unhesitatingly preferred the latter.⁵¹ Mr. Griffith Evans, a leading member of the Calcutta Bar, pointed out to the Council that an Income-tax in India was not the powerful instrument which an Income-tax in England was, nor an instrument suited to the country or easily worked. He, therefore, thought that it could not be trusted to meet the deficit which threatened constantly to run from the fall of silver.

Some members of the Legislative Council warned the Government that in its working it was likely to cause much difficulty, and might give rise to practical injustice. Babu (afterwards Raja) Peary Mohan Mukherji asked for a pledge as to the duration of the tax, but the Finance Member refused to give any, and observed: "If the principle is sound, it is unreasonable and inconsistent to promise that its application shall be of limited duration. If it is good for to-day, it is good for to-morrow and thereafter. So that I must decline to give any such pledge as I am asked for; nor would it be of any value if I gave it. No pledge can bind my successor, who must be guided by the exigencies of the day on which he is called upon to administer our finances." Another non-official member, Mr. V. N. Mandlik, regretted that the cotton duties had not been re-imposed and implored the Government not to insert the Income-tax in the budget as an ordinary source of revenue, for he thought that it pressed hard on the honest and its effects were demoralising.

The Select Committee altered the Bill in several respects. The principal modifications were the following: First, houses of persons occupied in the pursuit of agriculture were exempted.

⁵¹ He laid down certain principles: "The first principle of a proper system of taxation is that it should be fair in its incidence, and the second that no unnecessary wastage should be involved in its collection. Besides, these, it is obvious that the form of taxation should cause no unnecessary oppression or irritation, and should be framed in accordance with the wishes and even the prejudices of the people." Judged by this standard Mr. Steel thought that direct taxation was less suited to this country than indirect taxation.

Secondly, life insurance premiums or deferred annuities to the extent of one-sixth of the total income of a person were excluded from the computation of the amount of income liable to the tax. Thirdly, the special exemption of Government servants with salaries under Rs. 100 per month was omitted. The other exceptions were retained as in the original Bill.⁵²

In the course of the debate on the Bill, the Governor General pointed out that while the other classes of the population bore their due shares of the burden of taxation lawyers, doctors, members of the other learned professions, officers of the Government and other persons occupying an analogous status, and gentlemen at large paid little or nothing. "Now, surely," he observed, "this cannot be right, and to such an anomaly it is no answer to say that direct taxation is repugnant to oriental customs. Justice is the inhabitant neither of the East nor of the West. She admits no geographical limits to her supremacy, her throne is on high, and sooner or later, in spite of prejudice or custom, she never fails to vindicate her title to the respect and veneration of mankind. It is then in the name of justice that we propose the imposition of the tax, and we feel assured that every fair and right-thinking man in the country, no matter how his private interests may be affected by our action, will recognise that no other course was open to us." The Governor-General emphasised the fact that the Government had carefully eliminated from the Bill everything

⁵² The following sources of income were excepted: (a) any rent or revenue derived from land which is used for agricultural purposes; (b) any income derived from agriculture; (c) buildings owned and occupied by cultivators or receivers of rent or revenue; (d) profits of shipping companies incorporated or registered out of British India; (e) income derived from property employed for religious or public charitable purposes; (f) income of a member of the joint family or of a company when the family or company itself is taxed; (g) income devoted to the provident fund purposes to the extent of one-sixth of the total income of a person; (h) interest on stock; (i) salaries of officers in the Army not receiving more than 500 rupees a month; (j) the income of any person whose total income from all sources was less than Rs. 500.

that had rendered former measures of the kind odious and obnoxious, and added: "In fact our project is merely an expansion of the License-tax. The License-tax is a storied house, and on the top of it we are putting up a second story, but the order of architecture in both will be the same; and as the foundations of the one have stood the test of time and of popular criticism, so I trust will the walls of the other possess the same solid characteristics.⁵³

During the final stages of the discussion of the Bill, Babu Peary Mohan Mukherji suggested the collection of the tax in quarterly instalments; but it was not accepted by the Government. He also moved several amendments to the Bill. The first was to limit the duration of the measure to one year; the second, to raise the taxable minimum from Rs. 500 to Rs. 1,000; the third to exempt buildings occupied by owners from the operation of the tax. All the amendments were negatived. The Bill was then passed, as amended, without a division.⁵⁴

The actual net collection of the Income-tax in the year 1886-87 amounted to Rs. 1,27,75,110. The increase of the yield of this tax over that of the License tax was Rs. 80,47,410. The percentage of total collections was 26 in Bengal, 24 in Bombay, 17 in the North-Western Provinces and Oudh, 11 in Madras, 8 in the Punjab, 3 in the Central Provinces and 1½ in Assam, while the remaining 9½ per cent was derived from the collections in Ajmere and Coorg, and from officers immediately under the Government of India. Thus the two first-named provinces together furnished just one-half of the total revenue. The towns of Calcutta and Bombay contributed very largely to the result, being 50·4 and 50·6 per cent respectively of the provincial yield. The collections from these two cities, therefore, formed more than one-fourth of the whole

⁵³ *Proceedings of the Governor General's Council, 1886.*

⁵⁴ This Act repealed the Northern India License Acts, 1878, the Indian License Acts Amendment Act, 1880, and the Acts of the Provincial Legislative Councils relating to the License-tax.

amount collected in India. The number of persons assessed was 1 in 37 in these two cities and 1 in 80 in Madras city; 1 in 311 in the Bombay Presidency apart from the capital; 1 in 555 in the Punjab; 1 in 602 in the North-Western Provinces; 1 in 655 in the Madras Presidency outside the chief town; 1 in 811 in Assam; 1 in 853 in Bengal, excluding Calcutta; 1 in 866 in Oudh; and 1 in 1,136 in the Central Provinces. On the persons assessed the incidence of the tax was Rs. 22 in Bengal (excluding Calcutta) and in the Punjab; Rs. 23 in Madras and Bombay (excluding the capital); Rs. 24 in Oudh, Rs. 28 in the North-Western Provinces; Rs. 29 in the Central Provinces and Assam; and as for the great cities, Rs. 62 in Madras, Rs. 68 in Bombay and Rs. 82 in Calcutta.⁵⁵

About 30 per cent of the amount collected was charged on salaries and pensions (three-fourths of those paying in the schedule being Government servants). There were 774 companies, paying an average of Rs. 964, whose contributions were less than 6 per cent of the total proceeds. Rather more than 5 per cent, was derived from interest on securities. The remaining 59 per cent was obtained from other sources of income, one-third of those assessed in this schedule being moneylenders paying about Rs. 24 each on the average, and nine-tenths of whole number being assessed on incomes of Rs. 2,000 or less.⁵⁶ On this occasion, the method of working was more satisfactory than on previous occasions. The assessments on the fourth schedule (that is, miscellaneous sources of income), were, on objection, reduced by 19 per cent, and the number of persons absolved from taxation, by 11 per cent. Excluding the portion of the tax derived from interest on securities, 90 per cent of persons assessed had incomes below Rs. 2,000, and they paid nearly Rs. 50,00,000 or 38 per cent of the total amount collected. Persons with incomes between Rs. 1,000 and Rs. 750 numbered 13 per cent, and paid only 6 per

⁵⁵ Moral and Material Progress Report, 1886-87.

⁵⁶ Moral and Material Progress Report, 1886-87.

cent of the total revenue; while those between Rs. 750 and Rs. 500 numbered 51 per cent, and paid 15 per cent of the whole amount. The number of persons taxed on incomes exceeding Rs. 10,000 was 6,926, of whom 3,350 were Government servants. 338 assessments exceeded Rs. 50,000, of which 102 were assessed at over Rs. 100,000 and paid 7 per cent of the whole sum collected; the latter class included 37 companies, paying Rs. 6,39,010.⁵⁷

The arrangements for assessing and collecting the tax were rendered somewhat smoother in 1887-88, and there was a slight increase in the net receipts. Objections were promptly heard in that year; and in only less than $\frac{1}{2}$ per cent of the assessments was it necessary to have recourse to a sale of the property of defaulters. In the following year, the exemption from income-tax which hitherto, for administrative reasons, had applied to Lower Burma, ceased. It was not, however, extended to Upper Burma. The tax legally applied to the whole of Lower Burma but it was decided that assessment and collection would be made only in selected towns and centres of trade.

No changes were made in the system during the decade 1892-93 to 1901-2. Objections against assessments continued to be made in all the provinces, and in a fair proportion of cases, they were allowed. The work of assessment, however, continued to present great difficulties. To meet these, official agency was, in some cases, reinforced, as in the United Provinces, by unofficial

⁵⁷ The following comparison between the Indian Income-tax of this period and that levied in the United Kingdom is interesting: "The taxable minimum of income is lower than in the United Kingdom; but the average of earnings and the cost of living is also much lower in India. The total assessment represents, in round numbers, a taxable income of Rs. 64 million from securities, companies, trades and professions; and this total, though not in all respects comparable, is small by the side of the total annual value of 377 millions assessed to Income-tax under Schedules C, D, and E of the British Act, during the year 1888. The contrast is the more marked because the population of British India is more than five times as great as that of the United Kingdom." (*Moral and Material Progress Report 1889-90.*)

assessors. In Burma, headmen were employed for doing the work of assessment, and were granted a commission of 3 per cent on their collections. As a matter of fact, there was very often a tendency to fix the assessment too high rather than too low. But this practice was discouraged by the provincial governments, whose desire was to obtain accurate assessments, and to keep down the number of appeals.⁵⁸ The cost of collection in the districts was small, as the work was done for the most part by the existing agencies. In the towns, however, the collection charges were considerable. As in previous years, Bengal and Bombay stood out in 1901-2 far above the other provinces, and the contributions of the two cities of Calcutta and Bombay were very large.

During the years 1898-99 to 1902-03 there accrued to the Government large annual surpluses due mainly to the appreciation of the rupee. Therefore, in 1903, the Government decided, among other measures to remission of taxation, to raise the taxable minimum from Rs. 500 to Rs. 1,000. Mr. G. K. Gokhale and other non-official members of the Governor General's Legislative Council, had urged such a measure for some years past, on the ground that persons of small means whose incomes ranged from Rs. 500 to Rs. 1,000 could ill afford to pay the tax. This raising of the taxable limit gave great satisfaction to the poorer middle class.⁵⁹ It is worthy of note that the exemption of incomes between Rs. 500 and Rs. 1,000, while it reduced the number of assesseees

⁵⁸ Moral and Material Progress (Decennial) Report, 1901-2.

⁵⁹ Sir Edward Law observed on the occasion of the annual budget debate: "As regards the raising of the limit of exemption of the Income-tax, we believe that the tax on incomes under a thousand rupees is, in the main, paid by petty traders, by clerks in commercial and Government offices, and by pensioners, who, small as is the present impost, feel it to be a severe burden. We are very glad to relieve a generally highly deserving class of the community of this burden, which weighs particularly heavily on widows and orphans in receipts of small pensions barely sufficing for the necessities of life. Moreover, we have reason to fear that it is in the lower categories of incomes that hardship is perhaps felt in the matter of inquisitorial proceedings on the part of assessors,

by more than a half, produced comparatively slight effect on the total revenue.⁶⁰

In the following year the Income-tax became once more the subject of criticism in the Legislature. Dr. (afterwards Sir) Asutosh Mookerjee, a non-official member of the Council, suggested the abolition of the tax, and urged the following grounds in favour of his proposal : first, the tax was imposed at a time of great financial exigency, which had passed away; second, the income-tax was looked upon by every nation as a great financial reserve, which might be drawn upon in times of emergency; and as there was no emergency at the time it might be put aside; third, if the revenue from Income-tax continued to be raised even after the emergency was over, it was merged in the ordinary revenues of the Empire, and at last it would become difficult to abolish the tax without greatly dislocating the balance sheet; fourth, taxation was usually resorted to at a time when the Government found itself face to face with a sudden and grave financial difficulty, in order to enable it to balance revenue with expenditure; but to retain a tax so imposed side by side with a large surplus appeared to be contrary to all sound principles of finance, and liable ultimately to encourage extravagance; fifth, evasion was so entirely the rule that forms and returns were declared to be perfectly useless, and surcharge, or in other words, arbitrary assessments, made almost at random, had been universally necessary to attain anything like who, possibly, sometimes fix assessments at unjustifiably high rates, and we hope that by raising the limit of taxation to greatly reduce and simplify the work of assessment."

⁶⁰ The total gross receipts for the year 1902-3, were £1,403,492, while in 1903-4, they amounted to £1,206,845. But in 1911-12, that is, at the close of the decade, the income-tax yielded £1,652,878. The largest proportionate increase was in Burma. The increase was partly due to the extension of the area of assessment. The growth of revenue in the Presidency towns was the main factor in the increase which occurred in Bengal and Bombay. In 1902-3, the proceeds of the tax in Calcutta, amounted to £193,268, while in 1911-12, they were £236,109. The contribution of Bombay increased during the decade from £144,838 to £241,419.

a decent financial result; sixth, the assessment proceedings were of an inquisitorial character, and led to oppression and corruption, necessarily rendering the tax most unpopular; seventh, it violated one of the primary canons of taxation handed down from the days of Adam Smith, namely, that all persons should contribute as nearly as possible in proportion to their respective abilities, for the Indian Income-tax was extremely unequal in its incidence.

Although the arguments advanced by Dr. Mookerjee against some of the details of the system were quite valid, his condemnation of the principles of the tax was hardly convincing. He was, however, on very firm ground when he made his alternative proposal. If the Income-tax, with all its defects, was to be retained, he suggested the method of a graduated tax. He pointed out that one uniform rate under Rs. 2,000 and another for all incomes above Rs. 5,000 caused great deal of hardship to many middle class men. The vision of the Government was, however, too narrow to allow it to entertain such a proposal at this time. The Income Tax Act was applied to Berar in 1904. In 1905 it was extended to the whole of Lower Burma.

The number of persons assessed to Income-tax in India was very small, in proportion to the population before 1903, and after that date it was much smaller. The number of assesseees, including companies in 1902-3, was about 526,000 or less than 23 in 10,000 of the population; in 1910-11, the number was about 270,000 or 11 in 10,000. A classification of incomes assessed according to this amount showed that nearly two-thirds of them were below Rs. 2,000 a year, but that the proportion of the higher incomes tended to increase during the decade 1902-3 to 1911-12.⁶¹

⁶¹ The total number of incomes (including "profits of companies") in the highest class, that is, over one lakh, increased from 239 in 1902-3 to 363, in 1910-11.

Of the incomes assessed under Part I, salaries and pensions, about one-half was paid by the Government, and these included the great bulk of the highest salaries. Under Part II, cotton spinning and weaving, banking, mining, rail-

No changes of importance took place till the year 1916. In that year, the financial distress created by the European War compelled the Government to impose additional taxation. One of the measures adopted to cope with the difficulty was an increase in the rate of the Income-tax. All the then existing exemptions were left untouched, and the taxation of persons whose incomes, official or private, were less than Rs. 5,000, was not altered. But above this limit that tax was enhanced as follows: (i) Incomes from Rs. 5,000 to Rs. 9,999 were to pay 6 pies in the rupee; (ii) incomes from Rs. 10,000 to Rs. 24,999 were to pay 9 pies per rupee; and (iii) incomes of Rs. 25,000 and upwards one anna in the rupee. Full and definite effect was thus now given to the principle of graduation. This increase of taxation was expected to bring an additional revenue of £900,000.

In 1917, the Indian Income-tax Act, 1886, was amended with the object of improving the machinery so as to avoid the leakage which was taking place. The rule regarding the submission of returns of income was made more strict. On this occasion, the ordinary Income-tax was supplemented by a Super-tax on the largest incomes such as had been in force in England for several years previously. The rates of the ordinary Income-tax were left unchanged, but people having incomes in excess of Rs. 50,000 per annum were to pay Super-tax in addition. The bulk of the then existing assesseees were thus left alone, and the burden was laid on the shoulders of the rich who were best able to bear it, many of whom had made large profits in consequence of the war. The Super-tax receipts were all required for Imperial purposes, and they were placed under a special sub-head which was

way and jute spinning and weaving companies made the largest contributions. Under Part IV, bankers and moneylenders contributed more than a third of the total number of assesseees, and contributed in almost as large a proportion to the receipts. Commerce and trade accounted altogether for three-quarters, or more, of the assesseees, and of the receipts under Part IV, the professions provided about 13,000 assesseees, about two-thirds of whom were attorneys and pleaders. [*Vide Moral and Material Progress (Decennial) Report, 1911-12.*]

entirely Imperial. The rates were: In respect (1) of the first fifty thousand rupees of taxable income—one anna in the rupee; (2) of the next fifty thousand rupees of taxable income—one and a half anna in the rupee; (3) of the next fifty thousand rupees of taxable income—two annas in the rupee; (4) of the next fifty thousand rupees of taxable income—two and a half annas in the rupee; and (5) of all taxable income over two lacs of rupees of taxable income—three annas in the rupee.

Mr. (afterwards Sir) B. N. Sarma, then a non-official member of the Council, proposed an amendment to the Bill to the effect that the Super-tax should be in force for the duration of the war and for six months thereafter. This amendment was not accepted by the Government, and it fell through. Objections were also made to some of the details of the Bill. One non-official member, curiously enough, objected to the principle of graduation on the ground that it was likely, to “check industrial enterprise and cut at the root of saving.”⁶²

In 1918, the Government of India introduced a Bill to consolidate and amend the law relating to Income-tax. The aim of the Bill, as pointed out by the Finance Member, was to remedy certain defects in the machinery of assessment provided by the existing Act. Such defects had resulted “in unequal assessment of persons of equal means” and in loss of Government revenue. The most important proposals were three in number. Firstly, Sec. 4 of the Bill provided that in determining the rate at which the Income-tax was to be levied, the aggregate of an assessee’s taxable income from all sources, including agricultural income, should be taken into consideration. Secondly, in regard to the period with reference to which the assessment was to be made, the income of the preceding year, and not of the current year, was now taken to be the basis. Thirdly, Section 32 of the Bill was intended to enable the Government of India to tax the Indian profits of foreign firms which had previously escaped taxation.

⁶² *Proceedings of the Indian Legislative Council, 1917.*

The first of these proposals gave rise to much controversy. The Finance Member, Sir William Meyer, defended it on the ground that it was an anomaly that an income derived from more sources than one should pay "tax at a lower rate than an income of equal amount but derived from one source only. He also observed that it was not fair for the wealthy landlord to pay the tax at rates "intended only for the poor." The main ground of objection of those non-official members of the Council who opposed it was that the effect of this provision of the Bill would be to tax agricultural income in an indirect way. Maharaja Sir Manindra Chandra Nandi opposed the section on the ground that it was likely "to contravene the very spirit of Lord Cornwallis's understanding with the owners of permanently-settled estates." The existing exemption of all agricultural incomes was, in his view, "based on solemn pledges for well over a quarter of a century." Pandit Madan Mohan Malaviya thought that this was not the right way to proceed about the business of raising the rate of taxation; nor was it proper to bring forward a proposal for taxation without any justification being presented for such proposal.⁶³ Mr. B. N. Sarma, on the other hand, supported the principle of the Bill, and, in so doing, observed: "Graduated Income-tax proceeds on the principle that a man who has a super-abundance should give to the State a little more out of his excess than his unfortunate brother. Once this principle is accepted, I cannot see how we can escape from the conclusion that whether income is derived from agriculture, from commerce, or from any other source, it ought to be included within the total aggregate assessable income for the purpose of the graduated Income-tax." Sir William Meyer pointed out that

⁶³ Several other members also opposed Section 4 of the Bill. Sir Gangadhar Chitambar spoke of the resentment felt by "loyal citizens" who had been ever ready to do what they could during the war and on other occasions. Mian (afterwards Sir) Mahomed Shafi also opposed it. (*Vide The Proceedings of the Indian Legislative Council, 1918*)

there could be no question of a breach of faith, as the first Income Tax Act of 1860 had "deliberately taxed all landed profits."⁶⁴

At a later stage of the Bill, Mr. Sitanath Roy, a rich landholder, moved an amendment with a view to excluding agricultural income from the computation of the rate of tax. He spoke of the Government proposal as merely the thin end of the wedge, and expressed the apprehension that it was a prelude to a tax on landed incomes. This amendment was supported by many non-official members of the Council, including Mr. (afterwards Sir) Surendranath Banerjea. But it was opposed by men of the advanced school of thought like Mr. Srinivasa Sastri, Mr. M. A. Jinnah, Dr. Tej Bahadur Sapru, and Mr. B. N. Sarma. The official whip was not cracked at the time of division, with the result that the amendment was carried, thirteen official, including the Commander-in-Chief, recording their votes in favour of it.⁶⁵ Thus ended a strange episode in the history of debates in the Indian legislature.

It is not perhaps altogether idle to speculate on the causes which brought about the defeat of the Finance Member on this occasion. Though the proposal had been sanctioned by the Government it did not show any keenness in the matter. The amount expected to be realised from the proposed alteration in the law was not large, and this was probably one of the reasons for the apathy displayed by the official members. But a more important reason was their disinclination to provoke any discontent among the "loyal" section of the people during the most serious stages of the War. An impartial observer cannot help observing in this connexion that whatever might be the merits of the question, the procedure adopted by Sir William Meyer was entirely wrong. He

⁶⁴ Sir William Meyer observed on this occasion: "An Income-tax Bill always calls forth what some theologians call a rational love of self. In some cases voiced in to-day's speeches, I might even call it irrational." (*Proceedings of the Indian Legislative Council, 1918.*)

⁶⁵ Five non-official Indian members voted against the amendment. They were: Sir Dinshaw Wacha, Mr. Srinivasa Sastri, Dr. Tej Bahadur Sapru, Mr. M. A. Jinnah, and Mr. B. N. Sarma.

ought to have proceeded in a more direct and straightforward way to accomplish his object. If this had been done, he might have secured support of a large section of the enlightened public of the country in favour of his proposal.

The first post-war financial measure was one of remission of taxation. In 1919, the minimum of taxable income was raised from Rs. 1,000 to Rs. 2,000. This proposal did not require any defence, for it was universally recognised that there was no class which had been so heavily hit by the enormous rise in the cost of living as people with small fixed incomes.

In the same year, the Finance Member introduced the Excess Profits Duty Bill, the object of which was to raise money towards the cost of the measures proposed to give effect to the Resolution of the Indian Legislative Council of the 10th September, 1918. By this Resolution members of the Council had agreed that India should take a greater share than she had so far done of the burden of military charges of the war incurred by Great Britain. The Bill applied, with certain large exceptions, to all businesses in India, which during the current year had returned profits exceeding Rs. 30,000. The main exemptions were: Agriculture, salaried employments, professions, income depending on the personal skill of the earner, and concerns which were already paying excess profits duty in England. The average profits of four years, that is to say, two years before and two years since the commencement of the war, were to be taken as the standard. Any sum by which the ascertained profits of the year exceeded that standard would be treated as excess profits, and the Government would demand one-half of that sum. The Bill provided for an appeal, and one of its important provisions was the setting up of special tribunals for dealing with questions of general importance. The Excess Profits Duty and the Super-tax would not both be levied on the same individual or firm, but the Government proposed to take whichever was greater.

Anticipating the criticism that such a measure should not be

brought forward after the termination of the war, the Finance Member, Sir James Meston, replied that war was an evil the consequences of which remained after the cessation of hostilities, and that these consequences had to be paid for by means of taxation. He gave the assurance that the Government was prepared to make all possible allowances for hard cases, and to correct the valuations with the help of businessmen.⁶⁶

The Bill gave rise to a storm of opposition on the part of the community engaged in business. Two of the representatives of commercial interests, however, took an enlightened view of the situation and made their own position clear by stating that their personal views were not in accord with the views of their constituents. Mr. Malcolm Hogg observed: "Few, I think, will deny the inherent justice of the underlying principle of the Bill, namely, that those to whom circumstances arising out of the war have brought exceptional profits should contribute a portion of those profits to the cost of the war. It is when we come to try and embody this principle in legislation that difficulties arise." He added that in England the Excess Profits Duty had been accepted as a necessary war evil, and it would have been similarly accepted in India if it had been introduced at an earlier stage. Mr. Ironside thought that the Bill was largely the outcome of the wrong financial policy of the past, and urged that steps be taken to avoid thoughtless expenditure and to ensure economy in the spending departments.⁶⁷

The Excess Profits Duty was not continued in the following year. In March, 1920, the Government introduced a Super-tax Amendment Bill. The main purpose of this Bill was to substitute a Super-tax at a flat rate of one anna on the income of companies for the then existing rates which ranged from one anna to three annas on individual profits. In other words, a new form of Super-tax similar to the 'Corporation Tax' levied in other countries,

⁶⁶ *Proceedings of the Indian Legislative Council, 19th February, 1919.*

⁶⁷ *Proceedings, Indian Legislative Council, 1920.*

was to be substituted for a portion of the Super-tax. It was estimated to bring in about 2 crores and 20 lakhs, that is to say, 44 lakhs more than the replaced portion of the Super-tax. The Super-tax on the individuals, unregistered firms, and Hindu undivided joint families was continued as before. When the Report of the Select Committee on the Bill came up for discussion, Mr. B. N. Sarma moved an amendment with the object of giving relief to Hindu joint families by raising the minimum of exemption from Rs. 50,000 to Rs. 75,000.⁶⁸ Sir Fazulbhoy Currimbhoy moved another amendment, namely, "Where the income of an individual or a company assessed to Super-tax under this Act includes a dividend paid by a company assessed during the year, the said assessment shall be reduced by the amount of tax payable on the dividend at the rate of one anna in the rupee." His principal point was that the proposal of the Government involved the payment of Super-tax twice over. Mr. W. N. Crum supported the amendment. The Finance Member, Sir Malcolm Hailey, however, did not agree with the view, and refused to accept the amendment. He said: "Are we really and effectually taxing twice over? What we are putting on now is a form of taxation well-known in many countries of Europe as a Corporation tax. It is considered justifiable to tax a corporation partly because it enjoys the use of what may be called public capital, but even more because its shareholders enjoy protection against liabilities incurred, up to the amount of their shares. The company is, therefore, taxed definitely as a corporation, and that taxation may very justifiably be regarded almost as one of the working expenses of the company. The Super-tax

⁶⁸ Mr. Sarma, in the course of his speech on the amendment, observed: "Ever since the introduction of Super-tax Bills into this Council, there has been a lively controversy going on as to whether Hindu undivided families have not unnecessarily suffered by reason of the theory that for legal purposes the undivided Hindu family should be treated as a unit, and that some relief should be given to the Hindu families so that the hardship which has been caused may not be so great as it is at present." (*Vide Proceedings of the Indian Legislative Council, 1920.*)

we place on the shareholder afterwards is really an individual tax." He also controverted the opinion that the tax was likely to prove prejudicial to industrial interests or Indian interests.⁶⁹

In 1921, the Government of India faced with a deficit, found itself obliged to have recourse to additional taxation. Besides other taxes, an increase in the rates of Income-tax and Super-tax was decided upon. With regard to the former, it was considered undesirable to raise the rates of tax on the smaller incomes. But the rates on the upper grades were so increased as to work up to a maximum of 16 pies instead of 12 pies. At the same time, the rates on the higher grades of income liable to Super-tax were so raised as to work up to a maximum of 4 annas in the rupee on any excess over 3½ lakhs.

The following schedule was, accordingly, substituted for the schedule to the Indian Income Tax Act, 1918:

RATE.

When the taxable income is less than Rs. 2,000 .. Nil.

When the taxable income is Rs. 2,000 or upwards.

and—

- (i) the total income is less than Rs. 5,000 ... Five pies in the rupee.
- (ii) the total income is Rs. 5,000 or upwards,
but is less than Rs. 10,000 ... Six pies.
- (iii) the total income is Rs. 10,000 or upwards,
but is less than Rs. 20,000 ... Nine pies.
- (iv) the total income is Rs. 20,000 or upwards,
but is less than Rs. 30,000 .. One anna.
- (v) the total income is Rs. 30,000 or upwards,
but is less than Rs. 40,000 ... One anna and two pies.
- (vi) the total income is Rs. 40,000 or upwards ... One anna and four pies.

The Super-tax schedule was amended as follows:—

- (1) In respect of the first lakh of rupees of taxable income—

(a) in the case of a Hindu undivided family—

- (i) in respect of the next twenty-five thousand rupees of taxable income ... Nil.
- (ii) in respect of the next twenty-five thousand rupees of taxable income .. One anna in the rupee.

(b) In all other cases—	RATE.
(i) in respect of the first fifty thousand rupees of taxable income ... Nil.	
(ii) in respect of the next fifty thousand ... One anna in the rupee.	
(2) In respect of the first fifty thousand rupees in- come over one lakh of rupees ... One and a half annas in the rupee.	
(3) In respect of the next fifty thousand ... Two annas.	
(4) In respect of the next fifty thousand ... Two and a half annas.	
(5) In respect of the next fifty thousand ... Three annas.	
(6) In respect of the next fifty thousand ... Three and a half annas.	
(7) In respect of all taxable income over three and a half lakhs of rupees ... Four annas in the rupee.	

The financial difficulty of the Government of India continued in the following year, and it was found necessary once more to levy additional taxation. It was consequently decided, among other measures, to make a further call on the payers of Income-tax and Super-tax. The Government did not effect any alteration in the rate of tax payable by persons whose incomes were Rs. 30,000 or less a year. But the rate on incomes between Rs. 30,000 and Rs. 40,000 was raised from 14 to 15 pies, and that on incomes above Rs. 40,000 from 16 to 18 pies. At the same time, the higher rates of the Super-tax were re-graded, working up to the highest rate of 6 annas as against the then existing highest rate of 4 annas. The combined maximum of the two taxes was thus fixed at $5\frac{1}{2}$ annas.⁷⁰ These two measures taken together were

⁷⁰ The actual rates were as follows—

INCOME-TAX.	RATE.
A. In the case of every individual, every un- registered firm and every undivided Hindu family—	
(1) When the total income is less than Rs. 2,000	Nil.
(2) When the total income is Rs. 2,000 or up- wards, but is less than Rs. 5,000 ...	Five pies in the rupee.
(3) When the total income is Rs. 5,000 or up- wards, but is less than Rs. 10,000 ...	Six pies in the rupee.
(4) When the total income is Rs. 10,000 or up- wards, but is less than Rs. 20,000 ...	Nine pies in the rupee.

estimated to produce an extra revenue of 2½ crores. There was practically no opposition to this particular clause of the Finance Bill in the legislature, although the opinion was expressed that the financial necessity for the imposition of additional taxation

INCOME-TAX.

RATE.

- (5) When the total income is Rs. 20,000,
wards, but is less than Rs. 30,000 . One anna in the rupee.
- (6) When the total income is Rs. 30,000 or up
wards, but is less than Rs. 40,000 .. One anna and three pies in
the rupee.
- (7) When the total income is Rs. 40,000 or up-
wards One anna and six pies in the
rupee.
- B. In the case of every company, and every regis-
tered firm, whatever its total income ... One anna and six pies in the
rupee.

SUPER-TAX.

In respect of excess over fifty thousand rupees
of total income :—

- A. (1) In the case of every company ... One anna in the rupee.
- (2) in the case of every Hindu undivided family—
- (i) in respect of the first twenty-five thousand
rupees of the excess ... Nil.
- (ii) for every rupee of the next twenty-five
thousand rupees of such excess ... One anna in the rupee.
- B. In the case of every individual and every un-
registered firm, for every rupee of the first
fifty thousand rupees of such excess . One anna in the rupee.
- C. In the case of every individual, every un-
registered firm and every Hindu undivided
family—
- (i) for every rupee of the second fifty thousand
rupees of such excess .. One and a half anna in the
rupee.
- (ii) for every rupee of the next fifty thousand
rupees of such excess ... Two and a half annas in the
rupee.
- (iii) for every rupee of the next fifty thousand
rupees of such excess ... Two annas in the rupee.
- (iv) for every rupee of the next fifty thousand
rupees of such excess .. Three annas in the rupee.

had arisen not from any attempt on the part of the Government to secure the social or economic development for the country but from an erroneous and extravagant policy, both civil and military.⁷¹ The rates of Income-tax and Super-tax have not been varied since 1922.

It was in the course of the year 1922 that the law relating to taxes on income was consolidated and placed on a more satisfactory basis. The increasing weight of taxation led to a demand for more accurate assessment and, to meet this demand, a complete revision of the previous Acts was found necessary. The provisions of Act XI of 1922 were largely based on the recommendations of the All-India Income-tax Committee which had been appointed in 1921 to consider questions relating to the taxation of income.⁷² The principal changes introduced by this Act were

SUPER-TAX.		RATE.
(v) for every rupee of the next fifty thousand		
rupees of such excess	... ..	Three and a half annas in the rupee.
(vi) for every rupee of the next fifty thousand		
rupees of such excess	... ..	Four annas in the rupee.
(vii) for every rupee of the next fifty thousand		
rupees of such excess	... ..	Four and a half annas in the rupee.
(viii) for every rupee of the next fifty thousand		
rupees of such excess	... ..	Five annas in the rupee.
(ix) for every rupee of the next fifty thousand		
rupees of such excess	... ..	Five and a half annas in the rupee.
(x) for every rupee of the remainder of the		
excess	... ..	Six annas in the rupee.

⁷¹ One member of the Legislative Assembly, however, considered it necessary to voice "the rich man's grievance," and expressed the view that the effect of the proposed increase in the Income-tax would be "to kill the desire on the part of the capitalists of the country to enter into industrial and commercial enterprises." (*Vide Proceedings of the Indian Legislative Assembly, 22nd March, 1922.*)

⁷² The Government of India appointed in 1920 committees consisting of officials and non-officials in each province. The All-India Committee was appointed after the Reports of the Provincial Committees had been submitted.

as follows: (i) The income of the previous year was made the basis of assessment, and the adjustment system was abolished. (ii) it was made clear that the tax would be chargeable not necessarily on "income" calculated on actual receipts and expenditure, but on the "income, profits or gains" as set out and defined in the Act. It was also made clear that no uniform method of accounting was prescribed for all tax-payers, and that every taxpayer might, as far as possible, adopt such form and system of accounting as was best suited for his purposes. (iii) The distinction between 'taxable income' and 'total income,' which had been introduced in 1918, was abandoned, and the Act provided that the "total income" of an assessee should determine his liability to the tax as well as the rate at which the tax should be assessed. (iv) No account was to be taken by any income derived from a Hindu undivided family by an individual member of the family in determining the rate at which that individual member should pay Income-tax on his separate income. (v) The Act provided that a loss under one head of income might be charged against profits under another. (vi) In cases in which there had been a change in the proprietorship of a business or profession, it was provided that the liability for the tax based on the income of the preceding year should attach to the business or profession itself. (vii) The organisation of the department was completely changed. The Act prescribed that the head of the Income-tax department in a province should be known as the Commissioner of Income-tax, the appellate authority as the Assistant Commissioner of Income-tax, and the assessing authority as the Income-tax Officer. A Board of Inland Revenue was created which was to be the highest authority in regard to Income-tax, and to which the Government of India was empowered to delegate its authority under the Act. The appointment of the departmental staff was transferred from the heads of the Provincial Governments to those of the Central Government. (viii) The Act made it obligatory on the Commissioner of Income-tax to refer a case to the High Court

on the application of an assessee. (ix) The provisions relating to the disclosure of particulars regarding Income-tax assessments were made more stringent. (x) The Act made it obligatory on all employers, including private employers, to collect Income-tax at the time of payment of salaries. (xi) Wider powers were given to assessing officers in regard to returns, documents, etc. (xii) The procedure relating to refunds was simplified.⁷³ (xiii) The Act provided for relief from double taxation.

It should be noted here that neither the Act itself nor its schedules contained any provisions relating to the rates of taxation, which were left to be determined by the annual Finance Act. The Income-tax was confined merely to the basis, the methods, and the machinery of assessment, and was thus a purely administrative measure.⁷⁴ The passing of this Act was followed by the creation of an expert staff for the department.

Several legislative measures have been enacted to amend the law relating to Income-tax since Act XI of 1922 was passed. The most important of these measures are the following: (i) Act IV of 1924, which substituted the Central Board of Revenue for the Board of Inland Revenue; (ii) Act XVI of 1925, which provided for the taxation of sterling overseas pay received in the United Kingdom; (iii) Act III of 1926, which determined the liability of the Governments of British Dominions to taxation in India in respect of trading operations; (iv) Act XXIV of 1926, which provided for the levy of Super-tax at source on dividends paid to non-residents and allowed appeals to the Privy Council; and (v) Act III of 1928 which contained miscellaneous amendments. Another Bill is now under the consideration of the Central Legislature.

The different aspects of the question of income and taxation

⁷³ *Vide Statement of Objects and Reasons relating to the Income-tax Bill, 1922; also Sundaram, The Law of Income-tax in India.*

⁷⁴ This Act, as Mr. Sundaram points out, also marks the first step in the disengagement of the Provincial Governments from the administration of central subjects.

were discussed at considerable length by the Taxation Enquiry Committee⁷⁵ of 1924-25. Their investigations disclosed certain defects in the system which are discussed below: The present basis of assessment is, as has already been noticed, the income for the previous year, as compared with the average of three years which is the basis in England. This is open to the serious objection that while profits are taxed in every year in which a profit is made, no provision is made for the setting off losses against profits of subsequent years. The system leads to injustice and hardship, and the Taxation Enquiry Committee are right in proposing that a loss sustained in any one year should be allowed to be set off against the profits in the next subsequent year.

Under the existing law the charge of Income-tax extends to all income which accrues or is received in British India, but it does not extend to income which accrues abroad and is not received in British India. Moreover, profits of a business accruing outside British India are not chargeable if they are brought into British India after the lapse of three years. This involves a loss of revenue to the State. The Committee doubt whether the loss of income is very great and they are afraid that administrative difficulties would arise if a change was made. They, therefore, express themselves in favour of leaving things as at present. But Dr. Paranjpye dissents from the view.

In order to determine the liability of non-residents, four classes of cases have to be considered, namely, that of persons drawing in other countries pensions and leave salaries earned in India, that of persons resident out of India who draw interest on the sterling debt of India, that of non-resident firms which have agents or branches in India, and that of owners of shipping resident in other countries who do business with India. A cognate question

⁷⁵ The Committee was presided over by Sir Charles Todhunter and the other members were Maharajadhiraj Sir Bijoy Chand Mahtab of Burdwan, Sir Percy Thompson, Sardar Jogendra Singh, Dr. R. P. Paranjpye, and Dr. L. K. Hyider. Mr. B. Rama Bau acted as Secretary.

is that of refunds to non-resident assesseees whose incomes from Indian sources are liable to a rate less than the maximum. In the first case the Committee think that the claims of domicile should prevail. But Dr. Paranjpye holds the view that leave salaries of persons employed in India should be regarded as having accrued in India, and, therefore, should be liable to Income-tax. With regard to the second, opinion is almost unanimous in India that the country suffers a loss because Indian Income-tax is not deducted from the interest on sterling loans payable in London. The Committee express the view that whether interest on a loan should be liable to payment of Income-tax or not should depend on the terms of the loan, and they advise that in future there should be a definite statement in the prospectus as to whether Indian Income-tax is to be charged on the interest on the loan or not. In regard to the third, the Committee desire to draw a line of distinction between a selling branch and a buying branch. In the former case, they think that, as is done in England, the Income-tax should be assessed on the basis of the profits which may reasonably have been earned by a merchant who had bought from the manufacturer or producer direct. In the case of a buying agency, the Committee are of opinion that the maximum which ought to be charged to Indian Income-tax is the extra profit made by the establishment of a branch or agency in India. The same principle, in their view, should apply if the goods have been subjected to some process of manufacture in India after purchase. In this connexion the Committee refer to certain High Court judgments in which the words "accruing from any business connexion or property in British India" in section 42 (1) of Act were so interpreted as to tax not only the profit arising from operations conducted in India, but also the profit arising out of the sale of goods abroad. The Committee, therefore, recommend that this section should be so amended as to limit its operation in the manner indicated above. The last class of cases arises in connexion with shipping concerns. Reciprocal arrangements

have been entered into by several countries for mutual exemption of Income-tax payments, but in view of the fact that such action would involve India in considerable loss with no corresponding gain, the Committee are unable to make any recommendation in the matter.

On the question of refunds to non-residents, the Committee recommend a change in the law on the lines of English law which restricts the privilege of refund to British subjects and certain others, and even in these cases to a partial extent.

The exemption limit in India is at present fairly high; it is actually higher than in England. But there are no allowances in respect of wife, children and dependents. It was urged before the Committee that provision should be made for allowances on the lines of the English law; but in view of the administrative difficulty of verifying claims, the Committee recommend the maintenance of the *status quo*. This seems to be very unsatisfactory. The difficulty referred to by the Committee is not really insuperable, and, as is remarked by Dr. Paranjpye, no assessee is likely to make a false declaration without being easily found out. Dr. Paranjpye's suggestion that an abatement of Rs. 200 for a wife and Rs. 150 for each minor son or unmarried daughter up to a maximum of Rs. 950 seems to be a reasonable one.

Another defect of the present system is that no distinction is made in India between earned and unearned incomes. But in most advanced countries, these two categories of income are treated differently, the reasons underlying such differentiation being, first, that unearned income is in its nature more precarious than income derived from capital, and secondly, that the whole of an income which is earned is not available for spending if provision has to be made for old age or for dependents. The Taxation Enquiry Committee hold the view that these considerations apply with much diminished force in India for two reasons, namely, first, that there is no large class of rentiers depending on incomes from investments, and secondly, in so far as there is such a class,

by far the greater part of its investments is in land, and so long as income from land escapes Income-tax altogether, it would be invidious to impose a differential rate of tax on the small balance of investment income that remains. While admitting that there is considerable truth in this contention, it may be regarded as certain that the time is not distant when the question will have to be reconsidered.

The system of graduation adopted in India is different from that in force in England at the present moment. The defect of the Indian system is that, in the absence of a provision to meet the case, an income just above each limit at which the rate increases would pay an amount of tax which would exceed the amount of tax by an income at or just below the limit by more than the difference between the two incomes, and accordingly the taxpayer with the higher income would be worse off than the taxpayer with the smaller income. This defect is not entirely removed by section 17 of the Income Tax Act, 1922. The Taxation Enquiry Committee, while admitting the injustice of the present, does not consider it necessary to recommend any change. This hesitancy on the part of the Committee is much to be deplored.

In regard to the sufficiency or otherwise of the rates applied to incomes of various sizes, the tabular statement prepared by the Committee shows that, in the case of incomes up to £500, the Indian rates are comparable with those in other countries, and that on the largest incomes they do not fall far short of them, but that in the case of incomes from £1,000 to £10,000 they are decidedly low by comparison. The Committee decline to recommend any far-reaching change in the scales; nor do they consider it desirable to increase the maximum rates. They, however, think that, it would be equitable to make a moderate addition to the intermediate scales, for instance, by applying the 9-pie rate to incomes from Rs. 10,000 to Rs. 15,000, the 12-pie rate from Rs. 15,000 to Rs. 25,000, and the 18-pie rate from the point

onwards. They further suggest the exemption limit for the Super-tax be reduced to Rs. 30,000 and that a new rate of 6 pies be levied on the first Rs. 20,000 or part thereof in excess of that sum. They also recommend that in the case of a joint Hindu family the limit of exemption be reduced to Rs. 60,000, the anna rate being applied to the first Rs. 40,000 of excess.

The provisions for appeal leave considerable room for improvement. At present the appeals lie on questions of fact to the departmental officers, while on questions of law a reference can be made for the opinion of a High Court. In the former case the procedure is open to the objection that the department responsible for the assessment acts as judge in its own case. The majority of the Committee find considerable difficulty in recommending the introduction of a system on the lines of the General and Special Commissioners in England, and consequently advise that the matter be left in *status quo*. Dr. Paranjpye is of opinion that advisory bodies should be constituted in large centres so that an assessee may ask that their opinion be taken. On points of law, different judgments have been given by different High Courts. The Committee, therefore, suggest that an appeal to the Privy Council should be provided for.⁷⁶

With regard to the Super-tax on Companies the Committee suggest that the present designation of the tax should be replaced by that of a 'Corporation Profits Tax,' and that the exemption limit should be abolished. In this connexion, the majority regard as unfair the present practice of charging Super-tax on those

⁷⁶ Another suggestion of the Committee relates to the question of secrecy. There exist provisions for complete secrecy in the present law relating to taxes on income. The Committee suggest a departure from the present practice in two respects. First, they urge the adoption of the practice of publishing in the annual reports a list of persons penalised for Income-tax offences. Secondly, they suggest that where a local tax similar to an Income-tax is levied, in order to obviate the necessity for a double assessment, the law may be so amended as to permit Income-tax officers to draw up lists of persons and sums for which they are liable.

parts of a holding company's profits which represent dividends of subsidiary companies already charged to Super-tax. It is not right in their view that the same profits should be taxed twice or thrice, and they suggest that in future these should only be taxed in the hands of the subsidiary company. Dr. Paranjpye, however, does not agree with this view.

The Committee make some suggestions for dealing with the evasion of taxes on income. These are quite sound and are likely to prove useful if accepted. They regard as satisfactory the present arrangements for giving relief in respect of double taxation between the United Kingdom and India, but they do not offer any opinion on the arrangements which exist with the Indian States.

One of the peculiar features of the Indian Income-tax is the exemption of landed incomes. It has already been pointed out that incomes derived from the land were subjected to taxation when the earlier measures relating to Income-tax were enacted but that, in order to equalise the burden on all classes of the people, the Income-tax of 1886 (which was based on the License-taxes of 1877-78) was not extended to the landed classes as separate cesses had already been levied on them. These cesses, however, were removed later. On grounds of equity, therefore, the Committee see no reason why the landholders should be exempt. Coming to the question of the additional revenue which may be derived the Committee are of opinion that it was not likely to be very large; while the administrative difficulties are considered to be great. Nor are they disposed to ignore the political aspect of the question. On the whole, the Committee find the situation so puzzling that they refrain from making any recommendation with regard to this matter. But it is plain to everybody that the problem cannot be shirked and that the situation will have to be faced before long.

Some of the recommendations of the Taxation Enquiry Committee relating to taxes on income have been accepted by the

Government and embodied in the amending Acts; others are still under consideration.

The Income-tax has had a somewhat chequered career in India. The fact that it was an unfamiliar tax made it unpopular in the beginning, and the frequent changes which were made in the rates helped to add to its unpopularity. The earlier measures did not prove successful owing to various defects in the assessment and the administration of the tax. But by gradual steps many of its defects have been overcome, and in the course of time the people have become reconciled to it. The tax was in the earlier days levied to meet temporary emergencies, but after a great deal of hesitation and deliberation on the part of the authorities it has at last found a permanent place in the financial system of the country. Based as it is on ability to pay, the Income-tax is now regarded by the enlightened opinion of the country as the most equitable of all the available forms of taxation. The revenue it brings into the public exchequer is substantial, if not large, and is expected to expand with the industrial and commercial progress of the country.

INTERNATIONAL LABOUR CONFERENCE :

TWELFTH SESSION

BY

CAPTAIN W. J. ELLISON

The *Twelfth Session of the International Labour Conference* opened on 30th May and ended on 21st June, 1929. It was certainly one of the most fruitful conferences that the Organisation has yet held. In spite of a very heavy Agenda it reached agreement on all the questions put to it, and in certain directions was singularly successful.

The attendance was a record one. Fifty States out of the total fifty-six members of the Organisation were represented. The number of delegates was 161 (88 Government, 37 Employers' and 36 Workers' delegates), and the number of advisers was 235, giving a total of 396 persons officially appointed to take part in the Conference. For the first time in the history of the Organisation, China sent a complete delegation, a fact that must to some extent be attributed to the recent journey of the Director of the Office to the East. Brazil, although no longer a member of the League, was also represented by a complete delegation. Turkey again sent an official observer. The only noticeable absentee was the Argentine Republic, which for the first time was unrepresented at the Conference. A large number of the South American delegations, both in the Conference itself and on various other official and unofficial occasions during their visit, expressed their deep regret at the absence of Argentina; and it is to be hoped that next year they will again take their place.

There was the usual protest on the workers' side against the appointment of the *Fascist Workers' representative*. In addition to

their previous arguments the workers called particular attention to the fact that the General Federation of Fascist Corporations had been dissolved during the past year by governmental decree, and that this year's Workers' representative, Mr. Razza, was not elected by any general organisation of Italian workers but by the nominations of the six National Federations of Fascist Trades Unions. As on previous occasions, the Government nomination was accepted by a majority of the Conference. There was, however, a certain number of abstentions among the Governments, including those of Great Britain and Germany. The only other important complaint against the credentials of delegates was that against the *Estonian Employers' representative*, but his nomination also was finally upheld.

The Agenda of the Conference required final decisions on two subjects on which a preliminary discussion had already taken place last year; the fixing of Questionnaires on two subjects that came up for discussion for the first time; the discussion of a report on Unemployment; the examination of the Director's Report, the examination of the Reports called for under Article 408 of the Peace Treaty; and certain questions concerning the Standing Orders of the Conference, and in particular the constitutional relationship between any new "revising" Convention which might be adopted in modification of a Convention and the original Convention. As usual, the Conference divided itself into separate committees to deal with each of those questions.

Of the two questions that were due for final decisions, the first—that of the Prevention of Industrial Accidents—did not lend itself readily to the framing of an International Convention. By its nature the subject is one on which it is difficult or impossible to lay down precise regulations which would be uniformly applicable in all countries. The matter, however, was gone into very thoroughly by a large committee under the chairmanship of Sir Malcolm Delevingne, and a very full Draft Recommendation was adopted consisting of twenty-three Articles. The Recommendation

contained three sections, the first dealing with scientific research into the causes of industrial accidents and the means of their prevention; the second with various methods of securing co-operation between the different parties interested, and the third indicating a number of principles for incorporation in national laws or regulations. Considerable importance was attached to the principles of the "Safety First" movement, and, throughout, emphasis was laid on the fact that workers as much as employers and Governments were interested and should co-operate in the means of preventing industrial accidents. The most vexed question that the Committee had to decide was whether the Recommendation should be made to cover agricultural as well as industrial accidents. The workers were particularly interested in this extension of the field of application, and the text asks each country to consider how far it is possible to apply the Recommendations to the prevention of accidents in agriculture.

On one aspect of industrial accidents the Conference was able to arrive at a more definite conclusion. It adopted a *Draft Convention to the effect that where packages to be transported by vessels weigh more than one ton (1,000 kilogrammes) their weight should be indicated on the package*. The Government of the country from which the package is consigned should be responsible for seeing that this is done. The Employers' group were not able to vote for this Convention, which they felt had been insufficiently examined and might lead to difficulties with regard to the responsibilities of Governments. They felt less reluctant with regard to the general Recommendation, which was adopted by 100 votes to 12. The Conference also adopted a *Recommendation concerning responsibility for the protection of power-driven machinery*, which lays down that the responsibility for the equipment of machinery with safety appliances, while resting primarily with the employer, also devolves on persons who supply machines to the employer, and instal them in his workshops.

With the other question that was up for final decision the

Conference was able to deal more fully. A Draft Convention of thirteen printed pages was adopted on the subject of the *Prevention of Accidents to Workers engaged in the Loading or Unloading of Ships*. This Convention treats in great detail with such technical matters as hoisting machines and gear, the effective protection of motors, chain and friction machinery, live electric conductors, cranes and winches. It prescribes measures for the avoidance of dangerous methods of stacking and stowing cargo, deals with the height of fencing, etc. It is in fact a systematic effort to arrive at detailed international regulations covering the measures to be adopted for securing the safety of dockers when engaged in loading or unloading ships. While it easily obtained the necessary two-thirds majority in the Conference, a certain number of employers felt obliged to vote against the Convention on the ground that it was unduly detailed. In this connection, however, it should be noted that the value of a Convention which confines itself to general questions of principle is considerably decreased by the latitude which it may allow for variety of interpretation. It is in fact a common criticism of International Labour Conventions, and in particular of the Washington Eight Hours' Convention, that their provisions allow of various interpretations by different countries. It will be generally agreed that, in spite of the difficulty of arriving at exact uniformity of regulations in different countries, the drawing up of very precise and detailed conventions, if a fault, is a fault on the right side.

The Committee which dealt with this question sat throughout the Conference, and held a very large number of meetings. On the workers' side Mr. Earnest Bevin, Secretary of the General Transport Workers' Union, played a prominent part, and his very complete knowledge of the subject and long experience undoubtedly helped considerably towards the framing of an agreement which may be regarded as one of the most complete and detailed conventions yet adopted by the International Labour Organisation. The Convention was followed by *two Recommendations*, which

call attention to certain principles whose adoption would *facilitate the application of the convention* in different countries, and in particular the utility of '*certificates of equivalence*'; while a Resolution invites the Governing Body to consider the possibility of *appointing an international technical Committee* to work out a model set of regulations on the protection of dockers against accidents.

Both the questions that came before the Conference for first discussion opened up a new field for the Organisation. On the question of Forced Labour the Conference was able to reach a very satisfactory decision. It decided by a vote of 101 to 15 to place this subject on the Agenda of the next Conference. In this connection it drafted a very full Questionnaire, the first question of which raises the general principle of the complete abolition of forced labour as soon as practicable. It is true that the Workers' group in a minority report stated that in their view the questionnaire that had been adopted by the Committee was rather in the nature of a defence of forced labour (under certain necessary safeguards) than an effort to abolish it entirely. They obtained very considerable satisfaction, however, in the text as it was finally accepted. The Questionnaire in fact provides merely for the regulation of forced labour during the transition period which it is generally felt must elapse before it can be entirely abolished. The suppression of forced labour for private purposes was admitted by all persons concerned. Three further questions of principle, on which the workers were not able to obtain satisfaction in the Committee, were accepted by the Conference, i.e., the questioning of Governments as to whether persons engaged on forced labour should have the right to organise, as to whether their hours of work should be limited to forty-eight in the week and eight per day, and as to whether there should be a special body appointed by the Organisation to examine the application of any decisions that may eventually be reached on the subject. Moreover, a very large number of delegates, including the British Government representative, spoke

strongly in favour of the workers' thesis, and made it quite clear that it was only because they felt it impossible to ask Governments to abolish all forced labour both for public and private purposes immediately, that they put the Questionnaire in its present form.

On the whole it will be agreed that in this connection the Conference did a remarkable piece of work. The subject is entirely new as regards international regulation, and it is necessarily complicated by questions of race, colour and colonisation. While the interests of capital are frequently opposed to the mentality of native communities, the development of large areas of the world's surface is admittedly in many cases impossible at present without recourse to forced labour. From every point of view the Conference can be congratulated on having successfully tackled this difficult question and framed a Questionnaire which will no doubt lead next year to the adoption of international regulations.

The other question, that of the regulation of the *Conditions of Work of Salaried Employees*, is complicated, and not only by the technical difficulty of defining exactly what categories of worker can be covered by the term "salaried employees," but also by the general difficulty of precisely regulating the hours of work of any category of employee. The Employers' group was opposed to the study of the question. They felt that the time was not yet ripe, and that in view of its experience in the matter of the Washington Hours' Convention and of the regulation of hours of work at sea the Conference was unwise to embark again on so ambitious a proposal. The British Government suggested as a compromise that the scope of application of the questionnaire should be limited to shop assistants and the distributive trades. In the final resort however, a Questionnaire was adopted leaving open the question of the final acceptance by the next Conference of a Draft Convention or Recommendation, and providing an opportunity for Governments to state in the meantime in the fullest possible manner what in their view should be the scope of the Convention or Recom-

mentation and to what classes of workers or to what establishments it should be held to apply.

On the subject of *Unemployment* the Special Committee that was appointed to deal with the Office Report succeeded in drafting a Resolution which falls into two parts. The first recognises that the question of unemployment is closely dependent on economic and currency problems which fall more directly within the scope of activity of the League of Nations. It consequently asks the Office to continue its study of the unemployment question from this angle in consultation with the appropriate organs of the League, and in particular to look into the effects on unemployment of the increase in population, the development of new industries and the rationalisation movement. It recognises that in order to do effective work it is necessary to limit the enquiry to specific industries; and calls on the Office to deal with two industries in which the unemployment problem is particularly acute, and on which a considerable amount of information is already available, i.e., the coal-mining and textile industries. The second part of the Resolution invites the Governing Body to consider the possibility of placing the question of *unemployment in the coal mines* on the Agenda of a future Session of the International Labour Conference, and if possible on the 1930 Agenda. It is satisfactory to find in the first place that the International Labour Conference did not risk the reproach of meeting at a time when unemployment is rife in so many countries without making a further effort to take into consideration a problem of such first importance to the worker; and secondly, that the Resolution adopted suggests fields of study which may be hoped to be of practical and not academic value.

But to the serious student of the history of the Organisation one of the most effective pieces of work accomplished by the Conference was undoubtedly the adoption of the regulations governing the machinery for the *revision of International Labour Conventions*. It will be remembered that every Convention that has so far been adopted by the Organisation contains an Article providing

for the revision or modification of the Convention, if necessary, after ten years' experience. As the time for the effective application of this clause in the case of the Washington Conventions is at hand, the Governing Body and Conference were obliged to discover a means of putting it into effect without risking the destruction of the whole framework of international labour legislation, which has been so carefully constructed. The workers' group in particular felt that the ratifications so far obtained might easily be rendered worthless by ruthless revision. After long and complicated discussions, regulations have now been established under which any future revision may be limited to specific points in the Convention fixed in advance by the Governing Body. This apparent limitation of the sovereignty of the International Labour Conference is justified by the duty devolving on the Governing Body under the terms of the Peace Treaty to fix the Conference Agenda. Any fear of a complete breakdown in the machinery or a sudden cessation of international social obligations through the revision of Conventions has thus been effectively dissipated, and the future history of the Organisation will doubtless show the importance of these decisions.

The work of one other Committee calls for special attention. Under Article 408 of the Peace Treaty, countries are obliged to render every year a report to the International Labour Office on the application in their country of conventions ratified by them. Three years ago, on the insistence of the British Government, a special Committee of experts was appointed to examine these reports and present them to the Conference. This Committee had already last year drawn attention to the necessity of following more closely, not merely the legislative measures adopted, but also the practical application of these measures in the different countries. This year the Committee dealt with many points arising out of cases in which countries had given insufficient information with regard to the actual application of conventions ratified by them. It is perhaps improper to use the word "criticism" of

Governments in this connection. In any event the tendency to ask Governments to state more clearly the precise measures they have adopted towards the effective administration of international agreements to which they have pledged their countries' word, can only be welcomed, especially when, as was the case this year, such requests for additional information are directed not merely to the smaller countries, but also to Great Britain and other nations of the highest industrial importance.

As usual the *Annual Report of the Director* of the International Labour Office gave rise to an interesting discussion, which occupied the greater part of seven sittings and constituted a most useful exchange of views. Some sixty speakers representing Governments, employers or workers in more than thirty countries took part, and eight different languages were used. The debates were much facilitated by the adoption of the simultaneous telephonic interpretation system, which had been considerably improved since last year and enabled interpretations to be given in four or five different languages during the actual speeches.

The Conference also adopted a number of Resolutions dealing with such varied subjects as the organisation of work in sheet-glass factories on a shift basis; the rights of foreign workers in connection with insurance against old age, invalidity and death; the underground work of women and young persons; equality of treatment between national and coloured foreign workers; the organisation of white and non-white workers in countries where non-white workers are in the majority; an examination of the observance by States of their obligation under the Treaty to bring Conventions and Recommendations before the competent authorities within the prescribed time-limit; the recruiting of bodies of workers for employment abroad, and the possibility of increasing the obligation on 'special' countries such as India and Japan in the event of any revision of the Hours Convention. Reference is made elsewhere to the Unemployment Resolution, Mr. Jouhaux's budget Resolution, and Mr. Oersted's Resolution on the Conference

machinery. It should be noted that many of these Resolutions call for special investigations and reports by the International Labour Office, and consequently impose further burdens on its staff.

Perhaps for the first time the Office was intimately concerned with at least one political question. The British Parliamentary elections took place during the opening week of the Conference. Within a few days a declaration was made by Mr. Wolfe on behalf of the British Government to the effect that His Majesty's Government intended to take steps to ratify the *Washington Eight Hours' Convention*. This declaration was welcomed by the Conference as putting an end to a state of uncertainty under which the Organisation had laboured for many years. With regard to the Hours Convention, it marks the beginning of a new era; and whatever may be the exact method by which the new Government endeavours to redeem its electoral pledges—and there is no doubt that the Labour Party's support of the International Labour Organisation, with the promise to ratify the Hours' Convention, played no unimportant part in the recent General Election—it is certain that a fresh impetus has been given not merely to the Eight Hours' question itself, but also to the prestige of the Organisation as a whole by the British Government's declaration.

It is also a matter of some political importance that the Conference unanimously appointed, on the motion of the French and British Governments, *Dr. Heinrich Brauns*, for many years Minister of Labour of Germany, to preside over its gathering. Nor should the exceedingly able chairmanship of *Mr. Valdes-Mendeville*, Government representative for Chile, who presided over the business or steering Committee of the Conference and who was largely responsible for the final wording of many of the Resolutions adopted, go without mention.

While there is still perhaps too much of the *group spirit* both in the Committees and in the Conference votes, it would be a mistake to say that this system was exaggerated at the present Con-

ference. The structure of the Organisation and the Standing Orders of the Conference make a group system obligatory. This system only becomes dangerous when majority decisions are slavishly followed by all members of the group. One charge might, however, be laid against the Conference, i.e., that its Agenda was over-heavy. No doubt the number of social and industrial problems calling for international action make it exceedingly difficult for the Governing Body to limit the Agenda beyond a certain point; while the workers have a legitimate right to see as many subjects dealt with as possible. But the number and importance of the questions that had to be dealt with this year in the space of three weeks involved an exceedingly heavy strain on the members of the *Office staff*. Not only does the Conference do its work more thoroughly than it did in the past, but the production of simultaneous telephonic interpretations of the debates in Conference, and the additional translation into German as well as French or English of almost all the speeches in Committee, enormously increase the work involved. Tributes were lavishly showered on the staff for their efficiency and devotion. A more practical method of demonstrating their gratitude would perhaps be for Governments to allot a larger sum to the Office for staff and Conference purposes, and to insist that the natural desire of delegates to return as soon as possible to their own countries should not involve an altogether unjustifiable overworking of the staff who assist them to carry out their duties.

In his report on the prevention of industrial accidents, the Chairman called attention to the difficulty of arriving at satisfactory conclusions with a Committee of 68 members. The Committee on the Conditions of Work of Salaried Employees actually consisted of 78 members. A decision reached by the Conference on the report of its Standing Orders Committee to limit the *first discussion* of items on the Agenda to the fixing of the specific points to be submitted to Governments for their consideration, without deciding the exact text of the Questionnaire, is undoubted-

ly a step in the right direction. So also is a Resolution adopted by the Conference on *Mr. Oersted's proposal* that the Governing Body should consider means of regulating the proposing of Resolutions by delegates. But it is to be hoped that further consideration will be given to the task of lightening the labours of the Conference, and that in this connection full account will be taken of a *Resolution put forward by Mr. Jouhaux*, calling on Governments to keep their budget restrictions within the limits dictated by the increasing development and needs of the Organisation.

Towards the end of its proceedings the Conference ran the risk of being involved in an important political discussion arising out of a *Resolution put forward by Mr. Tchou* on behalf of the Chinese Government, and calling attention to the difficulty his Government experienced in enacting labour legislation so long as there were within its territory foreign "extra-territorial" districts over which it had no legislative control. An able statement of the case was made by Mr. Tchou, and while his Resolution did not receive the necessary number of votes for a quorum to be reached, since a large number of Governments abstained, at any rate it was not opposed. Mr. Albert Thomas in his closing speech assured Mr. Tchou that he could count on the International Labour Organisation to do everything in its power to assist the Chinese Government in its endeavours to improve the labour conditions of women and children in their country.

The Twelfth International Labour Conference undoubtedly marks a further step, as was declared by *Mrs. Kielsberg*, Norwegian Government delegate and Chairman of the Government group, in the promotion of international co-operation and thus in the achievement of international peace and security.

THE ECONOMIC INCIDENCE OF TENURIAL SYSTEMS

BY

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It has been recognized from time immemorial that ownership is economically more beneficial than tenancy and this has been repeatedly asserted by such agricultural enthusiasts as Arthur Young, the author of the oft-quoted saying that the "right of private property turns sand into gold." Of late, however, even such a confirmed belief has been questioned. All that the cultivator cares for, it is said, is a degree of security high enough to assure him the fruits of his labours. Fair rents are essential and a certain amount of fixity of tenure also, but free sale, they say, is a right which adds nothing to economic efficiency and is not necessary to call forth the best efforts of the cultivator. It was urged, for instance, by a Departmental Committee of the Agricultural Ministry in England which considered the question of small holdings, that no large percentage of those small holders expressed a desire to purchase their holdings except as an alternative to leaving them altogether, because they hold land on fixed rents and their tenure is secure only so long as they fulfil their contracts.¹ According to Mr. Orwin, not only are these small holders reluctant to purchase their holdings but "their desires are entirely in the opposite sense."² Yet many small holders forcibly advocated before the Selborne Committee on Agricultural Policy (1918) the drawing up of a scheme for enabling tenant farmers to

¹ *Report of the Agricultural Policy Sub-Committee* (1920), p. 63.

² *The Land Question, The Highway*, February (1928).

purchase their farms whenever opportunity offered and many expert witnesses also supported that contention.

No doubt in the case of some people tenancy, if sufficiently secure, may lead to as high a degree of production as peasant proprietorship, but it is certain that in the great majority of cases, ownership is a far stronger incentive to industry than the most secure form of tenancy. Indeed there are people like the "Diggers" of the Puritan days who would consider it a privilege to work hard on God's earth, to whomsoever it belongs; and I know a specific case of a tenant who put up on a plot of land improvements worth Rs. 10,000, although by the tenancy deed he was entitled to a compensation of only Rs. 1,000 on handing over his property. But these are exceptions, and human nature remaining what it is, it seems fairly certain that the owner would be a more assiduous improver than the tenant. And we have to add to it the high social and moral value of peasant proprietorship, which no economist or statesman can afford to neglect.

The conviction of the successful agricultural nations also confirms this view. Denmark which is to-day perhaps the most prosperous agricultural country in the world has openly declared that the system of ownership is the most influential of the causes of her prosperity. Such is the view also of France and Germany which put much faith in agriculture. Except in Britain, Belgium, Holland and Germany east of Elbe, the great majority of cultivators own their land. It is true that in England many tenant farmers have lately purchased their farms and if there has not been a stronger desire among English farmers to purchase their farms, it is not due to the preference of tenancy to ownership, but to quite other reasons—peculiar conditions applicable only to England—which need not be detailed here. Nor is England remaining where it was, seeing that since 1918 the area of agricultural land which is owned by the persons occupying it has risen from 10 per cent to nearly 30 per cent of the whole.³

³ Orwin : *loc. cit.* See also Nourse, *Agricultural Economics*, pp. 648—50.

II

There are certain other considerations which have to be taken into account when comparing the effects of tenancy and ownership. One of them is the nature of the use to which land is put. If the cultivation consists of annual crops, if more substantial improvements are not essential for the kind of cultivation, either because of the nature of the crop or because a third party like Government will provide special facilities (*e.g.*, water in irrigated areas), then it matters very little whether land is cultivated by the owner or the tenant. But if cultivation entails capital expenditure on substantial improvements whose return will only accrue after a long time, if that return is subject to the risks arising from slumps and market fluctuations, and if it will take many years for the full return to accrue as in the case of fruit-trees, cocoa, coconut, rubber and even tea, long-period possession approaching to ownership is necessary to call forth the most efficient cultivation; for, otherwise, the tenant is not likely to take the trouble. Quite possibly, a generous law of compensation for improvements might go a great way, but this cannot radically improve the inherent defects of tenancy.

There are indeed certain "good tenant crops," in the case of which tenancy might perhaps lead to as efficient cultivation as ownership.⁴ In the United States, cotton, rice and tobacco are generally considered such. They are annual crops and the manuring and tending necessary are generally exhausted after a crop or two. Even here, ownership has greater advantages than tenancy, for although the cropping is annual, there are various ways of special tending which cumulatively do much to increase the yield, and in many cases some provision for permanent improvements must be made even in the case of the best land. This is quite familiar to us in paddy cultivation in this country. Hence the deep concern at the menacing drift towards tenancy which American economists and sociologists are expressing at the increase

⁴ *The Land and the Nation (Liberal Land Report)*, p. 215.

of tenancy in the Eastern States from 25 per cent to 38 per cent between 1880 and 1920. The prevailing opinion in America seems to be that the increase of tenancy is resulting in inefficiency, and hence the increasing legislation on the subject.

Much greater will be the inefficiency resulting from tenancy where garden cultivation is resorted to. This point has been noted in Europe in connection with fruit trees and market gardening, but certain classes of planting in our country require much more protracted activities extended over a period of many years, and even after the crop comes into bearing, careful tending will be necessary at the appropriate seasons every year. A coconut tree, for instance, begins to bear fruit only in the eighth or ninth year, and the maximum yield comes much later, and it may continue to yield for a whole lifetime if properly tended. How will a tenant feel the security necessary to resort to such elaborate planting if his property rights are not altogether secure? Hence the great urgency of this problem in our own country.

III

The above facts may be demonstrated from actual conditions. I have instituted a preliminary statistical comparison of the economic results of tenancy and ownership in respect of paddy fields and garden crops. I took for comparison ten plots of paddy land and ten plots of garden land (compounds) of each category (*i.e.*, freehold and tenancy) in a West Coast village familiar to me, and collected in each case statistics regarding the amount of capital invested, the state of improvements, the outturn from cultivation, etc. The results may be thus summarized.

In the case of paddy fields which are in a fully developed state, the difference is not very striking. There is no appreciable difference between freehold and tenancy lands in regard to the extent of investment or the state of productivity. If the acreage yield differs between the plots, it is not so much by tenurial reasons as by differences in fertility and other natural facilities. In the case, however, of fields requiring substantial improvements

by way of clearing, digging or opening of channels and preservation of waterways, the position is not so simple. A tenant who has no secure interest in the fields he cultivates will not spend money on such long-standing improvements. Therefore when tenants cultivate such fields, the results of cultivation are bound to be less encouraging than when the owners themselves do the cultivation.

In the case of garden lands, this difference is even greater. Whilst the freehold gardens are thick with trees bearing valuable fruit and are most carefully walled and cleanly kept, the tenancy plots are under annual crops which exhaust the land too soon. The freehold gardens are mostly coconut topes or pepper gardens, and the tenancy plots are mostly under ginger, tapioca, gram and other annual crops and are mostly unwalled and carelessly kept. One can almost say by the look of a compound on the West Coast whether it is freehold or leasehold. Indeed the leasehold lands also give sometimes a decent net return, but they soon get exhausted and then the tenancy may cease, and the landlord may wait for long till he obtains another tenant.

Even when land is not employed for fruit gardening or other tree crops, the same difficulties may be felt. To quote an example given by Mr. Orwin:—"A tenant may be willing to put up a wind-engine to pump water required on a farm where bullock feeding has given place to milk production, for he knows that he can remove it on quitting. But if the provision of a water supply for the cowshed and cooling-room involves also the sinking of a well and the purchase and laying of water pipes as well as the erection, he may hesitate to embark on the improvement, well knowing that all this part of his outlay will be lost when he quits. Thus the economic development of his farm is held up, because the land cannot or will not lay out the needed capital and because the tenant will forfeit the cost of the works if he executed them himself."⁵ Those of us who have let our land or taken land on lease, must

⁵ *Agricultural Tribunal (Final Report)*, p. 309 (Appendix, Orwin),

have perceived by actual experience the psychological basis of the above conclusion.

In England and in most European countries, various devices have been resorted to to counteract the evils above set forth. The most usual way is the granting of compensation. Specific statutory enactment was needed for this in England, because common law allows the landlord the reversionary right to the improvements on his land and this is supported by the ancient maxim *Quidquid solo plantatur, solo cedit*. The first legal enactment in this direction in England was the Market Gardeners' Compensation Act of 1895, but this safeguarded only the market gardener and even this was partial as the landlord became reluctant to mark out much land as market garden. In the Evesham District of Worcestershire there is a custom, called the Evesham Custom, which has the effect of law, and which secures to the tenant whatever he has planted in the way of fruit trees, etc., to the extent that when he leaves the farm he has the right to find a new tenant who will be willing to pay him compensation. If the landlord does not accept the new tenant, he has himself an outgoer.⁶

IV

The people of the Malabar Coast have tried to solve the problem by a method almost *sui generis*.⁷ The *Kanom* tenure of Malabar is fairly well known and does not require an elaborate explanation from me. The essential point to be borne in mind about this tenure is that land is let to a tenant for a period of twelve years. The tenant pays a *kanom* or deposit to the landlord, and a lease is thereupon executed in his favour. This lease lasts only for twelve years but in practice, it is successively renewed on payment of the prescribed fees, and many such leases have lasted for centuries without any change, so much so that the

⁶ *Agricultural Tribunal* (Final Report), p. 38 and pp. 310-11.

⁷ This tenure obtains not only in Malabar District, but in the States of Travancore and Cochin.

tenant cultivates his land, builds houses, and makes permanent improvements as if the land belonged to him, and he could even sell the *kanom* right to others at a fairly high price. Of late years, there has been a tendency for such leases to be terminated, especially in the Malabar District, but on termination of the lease, the tenant is entitled to his *kanom* amount and for compensation for the improvements effected by him (which latter is regulated by the Tenants' Improvements Act of 1900). Whether the *kanom* system is in the nature of a lease or mortgage is a question that does not concern us here; nor need we look into the various minor incidents of *kanom*, such as the payments in kind and the semi-feudal dues which the tenant has got to pay on special occasions. We are only concerned here with the economic incidence of this tenurial system.

It is clear that the *kanapattam* is an arrangement devised to suit the special economic and social conditions of Malabar. The land of Malabar is among the most fertile in India and from time immemorial, Malayalis have been producing for export such commodities as pepper, coconut, cardamoms, areca-nuts, etc., much valued all over the world. All these are tree-crops requiring many years to raise and involving incessant tending and pruning. The landlords of Malabar have always been mostly the Nambudiri Brahmins and high class Nairs, and both these castes had functions set apart for them in Malabar society which precluded them from the work of cultivation. The Nambudiri performed his religious duties and the Nair engaged himself in military pursuits or royal service. Themselves thus preoccupied, they had to find people to raise the products that formed the wealth of Malabar and they had to give sufficient inducement to their tenants to do all the laborious tasks involved in raising perennial crops like coconut, pepper and areca-nuts and in turning filthy marshes into clean, grain-bearing fields. To provide such an inducement, the *kanom* system was gradually evolved by the ingenious Malayali, and later on it was fathered on Parasurama, the traditional founder of everything peculiar to Malabar.

The point to be ascertained is, to what extent has this object of *kanom* tenure been fulfilled? This cannot be determined by a general comparison between Malabar and the neighbouring districts, because the prevailing conditions differ materially. Rather it is necessary to institute a comparison between the freehold and *kanom* holdings in the same locality enjoying similar facilities and labouring under similar difficulties.

In attempting such a comparison, we have to draw a distinction between paddy fields and gardens, as above noted. Paddy fields are mostly held on the *kanom* or *verumpattam* tenure and the gardens may be on the *kuzhikanom* tenure as well. In this latter system, the tenant takes a plot of land for twelve years, during which he pays hardly anything and invests his money in planting coconut, areca-nut, jakh and other fruit trees. On the expiry of the period of lease, the landlord may recover the garden by paying compensation for improvements or may renew the lease on payment of the prescribed fees.

From the statistics I have gathered, it is clear that the *kanom* tenure works at its best in the case of paddy fields, which have been under the plough for generations, for, as has been already explained, whatever money the *kanomdar* spends on cultivation will come back to him within the same year or in the next. It therefore happens in certain specific cases that the returns from *kanom* and freehold lands are nearly equal.

This, however, does not represent the whole truth. A good portion of the paddy fields of Malabar is imperfectly opened up or requires permanent improvements in the shape of water channels, bunds, ponds or wells; and the *kanomdar*, in spite of his twelve-year tenure, cannot have sufficient incentive to make such improvements. Nor is the Malabar *jenmi* (unlike the average English landlord) in the habit of shouldering such responsibility himself. Had the *kanomdars* been cultivating the fields themselves, such improvements would perhaps be made to a great extent, but cultivation is generally carried on by *verumpattam* tenants on short-term lease. The necessary consequence is that the actual

cultivator has hardly any personal interest in making even the improvements needed for resisting the inevitable tendency to diminishing returns. Indeed many *kanomdars* have in the past made permanent improvements, but in the circumstances now emerging this may become comparatively rare.

Thus the *kanom* system, although at its best in field cultivation, has not proved itself fit even in that sphere. But the results are much worse in the case of garden cultivation. The *kuzhikanom* runs only for 12 years, but the yield from coconut begins only in the eighth or tenth year and continues for forty or fifty years, if properly tended. Unless a high degree of security is provided, it is too much to expect that a *kuzhikanomdar* would put forth his best energies to improve his land, and the inevitable result is under-cultivation. Indeed the provision of compensation may check this tendency, but this is not always a sufficiently strong check. Human nature remaining what it is, we cannot expect a man to work hard, unless the fruits thereof are assured to him and his.

No great statistical evidence is necessary to prove the above point. Yet, it has been stated that coconut cultivation has increased in Malabar, that much waste land has been brought under cultivation, in spite of the deleterious effects of tenancy system.⁸ Indeed it is inevitable that the pressure of population in a non-industrial country should bring waste land under cultivation and that when any crop becomes profitable more land should come under it. But has this improvement been commensurate with the opportunities offered? Two kinds of comparisons are necessary to determine this: (1) How does the *kanom* land in any locality compare with the adjacent freehold land? (2) How do *kanom* regions as a whole compare with freehold regions?

It has been shown in the foregoing pages how different plots of land in the same region show different levels of productivity.

⁸ See, for instance, Mr. H. R. Pate's 'Minute of Dissent' in the *Report of the Malabar Tenancy Committee*, pp. 84—85. See also the Majority Report.

Indeed *kanom* land is better utilized than *verumpattam* land, but it can by no means compare with freehold land cultivated by ryots. The difference in the number of trees does not tell the whole tale. We have also to note the gradual deterioration of *kanom* land by wasteful forms of tillage, by the incessant raising of annual crops of an exhausting nature which owner cultivators would resort to with reluctance. Indeed some trees are planted around the house, but they are not the most profitable trees and even they suffer by the exhaustion of the soil around which proceeds systematically. All this is quite clear to people who have even superficially observed conditions in any village where both tenures prevail.

Those who think that cultivation is rapidly extending in Malabar might be advised to make a trip to the southern parts of the Malabar Coast, where land is of the same quality, the same tenures obtain and nearly the same crops are raised. I would specially advise them to visit the Taluk of Minachil in North Travancore, where they will see substantial gardens, enclosed by imposing granite walls and thickly planted with all kinds of valuable trees. Further east are larger plantations of rubber owned by local people and some of them are as well kept as any plantations in South India. Of course, most of this land is freehold or *pandararaka*.

In that very region, there are also tenancy (*kanom*) lands, and the difference is most striking and significant. In the eastern part of the Minachil Taluk land belongs mostly to the cultivators (*pandararaka*); in the western, tenancy holdings abound. In the former, the great majority of gardens are under perennial crops like coconut, pepper, areca-nut, and are very profitably managed; in the latter, they are mostly under annual crops like ginger, turmeric, gram and tapioca. Indeed there might be other causes for this difference but the principal cause seems to be tenurial. It is but fair to add however, that the *kanomdars* in that locality obtain rather favourable terms from their landlords and that evictions are comparatively rare. In spite of such fair treatment, the economic effects inherent to tenancy persist.

Now this state of things ought not to be allowed to drag on indefinitely. The economic strength of Malabar country lies in its garden products which are in demand all over the world, and these are precisely the crops which cannot prosper under tenancy conditions. Indeed *kanom* tenure is greatly superior to other forms of tenancy, but considering the special conditions of Malabar the degree of security now afforded by *kanom* is not sufficient to call forth the best energies of cultivators. At any rate, there seems to be ample reason for materially modifying the conditions of *kanom* tenure in respect of garden land. I am prepared to go even further and suggest that the whole system of *kanom* tenure requires readjustment with a view to bringing it into line with modern conditions, social and economic. *Kanom* perhaps did well in the days of feudal economy when the different classes in Malabar society were contented with the functions traditionally assigned to them. But with the entry of our country into the vortex of world economy, the pressure of economic forces is perhaps more keenly felt in Malabar than elsewhere in India, and along with it social ideals and conceptions have also been rapidly changing. All this calls for reform, and under modern conditions, who is to effect such reform but Government, unless another Parasurama or Sankaracharya rises to perform a function which to-day is performed by Mussolini in Italy? Those who think that social or economic discontent has not sufficiently voiced itself in Malabar to call for legislation seem to forget some of the most fundamental characteristics of Indian society. To rebel against hidebound custom and even to resist cruel oppression may not be possible for, or habitual to, all people; history tells us that even the progressive nations of the West have not always shown any great alertness to resist evils under similar circumstances. And for the honest doubt whether legislation is capable of remedying such social and economic ills, I can only say that without delving deep into the annals of *Bauernbefreiung* in Europe between 1760 and 1860, one could get that doubt cleared up by studying recent agrarian legislation in the rising states of Central Europe, which

have lately turned a new leaf in their economic as well as political history. Legislation is far from perfect as a means of social amelioration, but in a society in which the State is the dominant factor, I for one could not discover a more effective and practicable medium.

AGRICULTURAL CYCLES AND SUNSPOTS

BY

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Chief Season of Rainfall in different parts of India.

In all agricultural countries the fluctuations in the annual amount of rainfall are clearly reflected in cropping and work out their rhythmic effects in remote phases of the economic life of the region. The problem is of great practical significance in India because of the enormous annual fluctuations in the cropped areas of the country due to the peculiar character and distribution of the Indian rainfall. We have already seen that it is upon the rainfall of the west or the south-east monsoon that the prosperity of Indian agriculture chiefly depends. Nearly 90 per cent of the whole rainfall of the year falls on the average during this part of the year. The following table shows the importance of the wet-season rainfall according to the main rainfall divisions of India.

Rainfall Divisions.	Cold Weather period — January and February.	Hot Weather period — March to May.	Normal Rain-fall South-West Monsoon — June to October.	Retreating South-West Monsoon — November-December.	Dry Season — January to May.	Wet Season June to December.	Total.
North-West Dry area ...	1.02	1.30	7.49	0.43	2.32	7.92	10.24
Indo-Gangetic Plain West	1.52	1.20	27.58	0.59	2.72	28.17	30.89
Indo-Gangetic Plain East	1.31	3.72	41.85	0.58	5.03	42.43	47.46
Sub-Himalaya East ...	1.27	6.35	56.51	0.33	7.62	56.84	64.46
Delta of Bengal ...	1.64	15.58	60.78	1.38	17.22	62.16	79.38
Brahmaputra Valley ...	2.37	23.99	64.49	1.01	26.36	66.0	92.36
Gujerat ...	0.12	0.22	26.96	0.34	0.34	27.30	27.64
South India ...	0.58	6.21	18.55	5.83	6.70	24.38	31.17
Deccan ...	0.16	2.36	25.35	1.81	2.52	27.15	29.68

We thus see that over a great part of Western India including nearly the whole of the Bombay Presidency it is only during the monsoon season, i.e., from June to October that there is any rain of importance. This is the chief season of rainfall in Burma, Assam, Bengal, the North-West Provinces, the greater part of the Punjab, Central India, Rajputana, the Central Provinces, Hyderabad, the Deccan, Berar, Guzerat and the whole of the west coast of the peninsula. But the south-east of the peninsula including the Carnatic and the Eastern Ghats and the Eastern half of Ceylon, receive only an occasional shower so long as the main body of the monsoon is directed towards Northern and Central India, and their season of heaviest rainfall comes later, viz., from October to December, when north-east winds are beginning to blow in the north-west of the Bay, and both the incipient north-east monsoon and the residue of the southerly current are drawn towards the Carnatic and the southern half of the Bay.¹

The South-East Trades.

The south-west monsoon current is the direct continuation of the south-east trades and generally reproduces more or less any large variation in the strength and character of the latter. Pressure variations have been found to be simultaneous over wide areas including the Sahara, Abyssinia, India, Arabia, etc. Thus Lyons has plotted variations from normal pressure for Bairut, Cairo, Zanzibar, Aden, Mauritius, Bashire, Bombay, Hongkong and Shanghai, and there seems to be a general agreement among fluctuations of barometric pressure at all these stations from April to September. Similarly, the rainfall of the Sudan and Abyssinia or the Nile floods varies in the same manner while the rainfall in Burma (and to a less extent in Bengal and Assam) and that in North-western and Western India vary inversely since fluctuations in atmospheric pressure which cause variation in the rains are widespread in occurrence.

¹ Blanford : *The Climates and Weather of India, Ceylon and Burma*, p. 70.

Sunspots and Weather Variations over Large Areas.

Cyclical variations in pressure have now been seen to depend upon a relation between atmospheric pressure and the cycle of activity through which the sun passes in a period of about 11 years as shown by various solar phenomena. Various investigators, especially Koppen and at a later date the famous astronomer, Newcomb, have found unmistakable evidence of a world-wide variation in temperature in harmony with the sunspot cycle.²

Koppen's investigations showed that temperature reaches a maximum shortly before spot minimum and a minimum above spot maximum. Humphreys who has investigated in detail the relation between temperature and sunspots has concluded that at least since 1750 and presumably, therefore since an indefinitely distant time in the past the two phenomena, atmospheric temperature and sunspot numbers, have in general varied together with however marked discrepancies from time to time.³

Huntington and Visser in *Climatic Changes* refer to another large group of investigators who have shown that atmospheric pressure also varies in harmony with the number of sunspots. Some parts of the earth's surface have one kind of variation at times of many sunspots and other parts the reverse. These differences are systematic and depend largely on whether the region in question happens to have high atmospheric pressure or low. The net result is that when sunspots are numerous the earth's storminess increases, and the atmosphere is thrown into commotion. This interferes with the stable planetary winds, such as the trades of low latitudes and the prevailing westerlies of higher latitudes. Instead of these regular winds and the fair weather which they bring, there is a tendency towards frequent tropical hurricanes in the lower latitudes and towards more frequent and severe storms of the ordinary type in the middle lati-

² Quoted in Huntington's *Earth and Sun*, p. 10.

³ Humphreys : *Physics of the Air*, p. 598.

tudes.⁴ Hann summarises a number of investigations which show a major maximum of rainfall at sunspot maxima and a minor maximum of rainfall at sunspot minima. Similarly Helland-Hansen and Nansen have demonstrated such relationship over and over again. Meldrum and Lockyer have made special efforts to prove the influence of sunspots on the quantity of rainfall. The result was that there appears to be more of rainfall at the time of the maximum of sunspots than at the time of minimum. In the tropics there is an obvious regular variation than in the higher regions. Generally, however, this excess of rainfall shows itself at the time of the maximum sunspots only in the large numbers on the average and over the majority of the stations, certainly not in each period nor at every detached station. Hill had tried to show that in years of sunspot maxima the summer monsoon remains in the average while the winter rainfall in Northern India at the same time is in excess. It shall be just otherwise at the time of sunspot minima. Gilbert T. Walker in his Preliminary Study of World-Weather discusses in detail the correlations between sunspots and pressure, temperature, winds, cloud and rain. He finds that with an abnormally large number of sunspots annual pressure is affected irregularly; annual temperature is, in general, lowered particularly in the tropics; the effect on winds is uncertain, cloudiness in India is apparently, slightly increased, except in the hot weather, April and May; and rainfall is affected irregularly, heavier rain in general, going with low pressure. A comparison of temperatures at some stations in India with values of the solar constant has been made by him for the summer months 1905, 1906 and 1908—1920. He finds that “. . . apart from rainfall the solar constant has a correlation coefficient of about +.30 with temperature.”⁵ Abraham Streiff, after

⁴ Climatic Changes, p. 53.

⁵ The Geographical Review, Vol. XIV, No. 4, October, 1924, p. 657, reviewing “A Preliminary Study of World-Weather, 1923,

summarising the evidence of the relation between sunspots and rainfall concludes thus: "Evaporation is dependent on humidity as well as temperature, and on other factors as well—as, for instance, exposed surface area and wind velocity. Evaporation will take place in a thermally isolated vessel without supply of heat, thereby lowering the temperature. The latent heat is always restored to the atmosphere upon condensation, and possibly is used repeatedly, as in industrial multiple evaporators. Perhaps the findings of Doctor Dorno, tending to prove increased atmospheric condensation with increasing sunspots, furnish a plausible explanation of the relation between rainfall and sunspots."⁶ In the same way Douglass in his studies of Climatic Cycles and Tree Growth has found that trees living in the moist climate of North Europe and North America vary in the rate of radial growth with the changes in solar activity so that the widest rings correspond to sunspot maxima. Douglass examined trees from Prussia, South Sweden, Central Sweden, Christiana, the Norwegian West Coast, South England, Vermont, etc. The growth of trees from all the European regions show an unquestionable agreement with the sunspot curve; this is particularly the case in the growth of trees from the two first mentioned regions.⁷ Ernest Antevs who reviews the literature on the relation between climate and tree-growth refers to Abbot, Fowle and Aldrich who have found that the radiation of the sun is the strongest during sunspot maximum, and high values of the solar constant are attended by a greater increase of energy in the shorter wave lengths than in the longer ones. In other words, during sunspot maximum particularly the blue parts of the sun spectrum are strengthened.⁸ Abbot now has an accurate record of the solar constant from 1918 on. The solar constant declined rapidly from its height of 1917—20 until by

⁶ *Monthly Weather Review*, February, 1927.

⁷ Douglass: *Climatic Cycles and Tree Growth*.

⁸ Ernest Antevs: *The Big Tree as a Climate Measure*,

September, 1922, it stood at 1913, the lowest mean recorded since the beginning of observations in 1905. In March, 1923, it recorded 1908. With the beginning of the new sunspot cycle this constant has come back to normal. All this change seems to be a correlation with the sunspot cycle, with radiation three per cent above normal at the maximum activity.⁹

It appears on the whole that the evidence as to the relation between sunspots and the weather is not so clear in Europe as in the United States, Africa, India or Australia. This is chiefly because the records are not so homogeneous over large areas. Nevertheless as far as it goes the evidence points to the same type of relation as in the other regions. Huntington has prepared maps on the basis of the tables of annual rainfall given by Walker representing the variations of rainfall in the periods when sunspots are on the increase and on the decrease. In Europe, areas of increasing rainfall in the period of increasing sunspots fall in Scandinavia and the Mediterranean region correspond to similarly placed areas in Canada and the South-west. In the interior of Europe and Northern Asia, an area where rainfall decreases correspond roughly with a similar area in the interior of the United States. Perhaps the most surprising feature of the map is the almost uniform decrease in rainfall along the heat equator at times of solar activity. It appears that the earth's surface is somewhat intricately divided into areas which respond to solar activity in opposite ways.¹⁰

Weather Variations in the Monsoon Region.

No doubt in those regions where the course of the weather is regular from month to month, the main weather features are determined by the cycle of solar activity. One such region is the monsoon region in Asia and Africa. The physiographical and

⁹ Douglass : *Climatic Cycles and Tree Growth*, Vol. II, page 114.

¹⁰ Huntington : *Earth and Sun*, pp. 91—95.

geographical features of India in particular have cut her off, in the lower air movements towards the north, north-east and north-west. Northern India is at one season the goal of the sea winds that blow in the lower strata, and at another season the source of the land-winds that blow from it to the neighbouring seas. The alteration of seasons known as the monsoons, which is the primary fact of Indian meteorology has its origin in the air movement and pressure conditions in the Indian Ocean and seas on the one hand, and the Africo-Asiatic land mass from the West Mediterranean to Central Asia and North-East Asia. Thus the weather is unusually uniform, and perhaps the most striking illustration of this uniformity is furnished by the regularity in which the monsoon current advances to the coast districts of India and then gradually spreads to the larger Provinces.

Sunspot Occurrence and Rainfall in Africa.

Now the rains of the Sudan and Abyssinia which are due to monsoons blowing into Africo-Asiatic infrabar show a considerable similarity with the rains of the south-west monsoon of India. Thus over vast areas including the Sahara, the Sudan, Abyssinia, Arabia, Western and Northern India there prevails a considerable uniformity of weather conditions. It is for this reason that we expect in the monsoon area better possibilities of long-range forecasting based on observations covering a large number of sunspot cycles than in other regions where the weather is subject to local and casual variations. In Africa the relation between sunspot occurrence and rainfall has been shown by several investigators. Thus in the Sudan Renner finds that if a graph of sunspot occurrence be compared with the rainfall records there is a fairly close agreement between drought and years of few sunspots. The year 1913, a year of few sunspots, had the worse drought in recent decades: the converse is true of 1916. The relationship is probably not so immediate as this in most cases; there is usually observable a lag of one or two years in this relation between sunspot

activity and rainfall.¹¹ Brooks in the study of "Variations in the Levels of the Central African Lakes Victoria and Albert" already referred to has shown that over a period of about 25 years, or two sunspot cycles, the levels of these lakes have varied closely in accordance with sunspot numbers. The rainfall of the region seems primarily responsible for the variations in level, there being a correlation coefficient of 0.195 between the rainfall of the lake plateau and the level of Lake Victoria, while the correlation coefficient of sunspots and rainfall is 0.64.¹² A further study by Dixey has shown that there is a close sympathy between lake level and sunspot numbers in the case of Lake Nyasa.¹³ Minimum of the lake occurs with sunspot minimum as in the case of Lake Victoria.

The researches of Koppen and others have established beyond doubt that there is a close connection between sunspots and tropical temperature; the latter being 0.6°C higher at sunspot minima than at sunspot maxima. Recent Smithsonian investigations in Argentina, Chili and Brazil have shown that the change due to variation of one per cent in the solar radiation appears to range between 0.2°C and 0.8°C in the tropics; in the temperate zones the effect, though less direct, is greater even exceeding 2°C at some stations. Clear evidence is provided by the temperatures found at Buenos Aires that high values of solar radiation are followed by maximum values of temperature at an interval of nearly eleven days. The interval is not the same for lower maxima of radiation, and the amount of lag appears to be connected with the latitude of outbreaks on the sun, but more remains to be explained than the solar rotation will cover.¹⁴ During periods of sunspot minima evaporation proceeds at a greater rate

¹¹ G.T. Renner—A Famine Zone in Africa: The Sudan. The Geographical Review, October, 1916.

¹² British Meteorological Office Geophys. Memoirs No. 20, 1928.

¹³ Lake Level in Relation to Rainfall and Sunspots, Nature, November 1, 1924.

¹⁴ Publication No. 2544 of the Smithsonian Misc. Collections (Vol. LXXI No. 8).

on account of higher temperature and the level of the equatorial lakes in Africa falls while at sunspot maxima evaporation decreases and the level of the lake rises. Thus the levels of the African lakes Victoria, Albert and Nyasa vary in close sympathy with the number of sunspots; moreover, certain minor variations associated with sunspot phenomena are also common to all three lakes so far back as the records for each can be traced.

Sunspots and Rainfall in Australia.

In Australia Griffith Taylor has shown a remarkable correlation between the drought years at Bourke and the sunspot cycle.¹⁵ Quayle after arranging the rainfall stations in Australia in climatic districts both for the eastern and western interior of the continent has found that the best rains occur during the 'rising phase' of sunspot activity and the poorest during the minimum phase. In the Northern territory and Central Australia generally the best rains occur later, or during the 'declining phase,' the lag amounting usually to three years, or in the case of Daly waters possibly four years. The rainfall response to solar activity of the eastern and south coastal stations is generally so slight as to be almost negligible. For the rainfall increase over the eastern and western interior of the Continent during the rising phase of the solar activity, it is suggested that since these areas derive their rains almost entirely from air drifts of tropical origin these must be of greater energy and frequency during this sunspot phase. For coastal areas the maintenance of the rainfall during the minimum phase may be due to the greater frequency there of coastal cyclones. The increased rainfall in the Territory and Central Australia during the declining phase may be due to longitudinal changes in the loci of the southward tracks of tropical air drifts.¹⁶

¹⁵ Griffith Taylor : *Geography and Australian National Problems*, Australian Association for the advancement of Science, Vol. 16, 1923, pp. 433—487,

¹⁶ *Nature*, October 4, 1924,

A parallelism has been demonstrated between sunspots and tropical hurricanes by more than one investigator. Clayton finds an increase of rainfall in tropical regions when sunspots are numerous. Hence he attributes a large part of the cooling of the air in tropical regions at sunspot maxima to the increased rainfall. The rainfalls from an elevation where the temperature is from 5° to 10°C lower than at the surface and brings its low temperature with it, thus lowering the temperature of the surface air. Thus anything which increases the amount of rainfall would to that extent lower the mean temperature. The increased rainfall at times of many sunspots may have some connection with the apparent rise in the number of cyclones. Certain it is that most tropical cyclones cause heavy rainfall.¹⁷ The increase in tropical cyclones is however possibly greater proportionally but by no means absolutely than in the storms of middle latitudes. Huntington suggests that this may help to account for the slightly greater decrease in temperature in low than in middle latitudes at sunspot maxima. Relatively speaking, the increase in wind velocity at storminess at sunspot maxima seems to be more marked than the diminution of temperature. The change in storminess, judging by the figures for storm in North America, may mean an increase of 5 or 10 per cent; the change in temperature is only 0.6°C .

Sunspot Minima and Deficient Indian Monsoon.

There is thus clear evidence that at sunspot maxima the Africo-Asiatic low pressure area shows an unusual deepening and extension while at sunspot minima this low pressure 'fails to develop strongly.' The varying conditions of solar radiation lead to variations in the intensity of the low pressure area that extends from West Africa to China with its two centres, one north-west of Lake Chad and another in Rajputana. This justifies the

¹⁷ Clayton : *World-Weather*, New York, 1923. S. S. Visser : *Variability versus Uniformity in the Tropics*, Sci. Mo., Vol. 15, 1922, pp. 22—35, quoted by Huntington.

conclusion that in years of sunspot minima deficient storminess in South-East trades region in the period November to April is followed by a weaker south-west monsoon than usual, more especially in the Arabian Sea branch of the monsoon currents. The rains in such years of deficient monsoon are late in their establishment over Western and Northern India and the Bombay current retreats earlier than usual and gives considerably less rain than the normal over the whole area dependent on it. This will be clear from the following table which shows the distribution of monsoon in one of our worst famine years, 1896.

The south-west monsoon rainfall in that year was not only deficient but it commenced early and terminated abnormally early and abruptly.¹⁸

	Variation from normal date of comence- ment.	Monsoon closed earlier than usually.
Bombay (West Coast Districts)	9 days later than usual	45
Central Provinces	7 "	45
Central India	6 "	33
Rajputana	6 "	33
N.-W. P. and Oudh	4 "	31
East Punjab	6 "	24
Bengal	3 "	40
Bihar	4 "	27

The shortage of rainfall in a drought year is not, however, confined to the wet season. There is deficiency throughout the whole year. The main features of the rainfall are hence not special to the south-west monsoon but general and affecting the meteorology of the whole period. Eliot gives the following figures showing the rainfall variation of whole of India (excluding Burma) in 1896.

¹⁸ Eliot : Periodic Variation of Rainfall in India, Nature, June 3, 1897.

Variation of Rainfall in India in the Famine Year, 1896.

January and February.	March to May.	June to September.	November and December.	Of whole year.
-0'45	-1'09	-3'80	-0'33	-5'01

Similarly in the United Provinces of Agra and Oudh a failure of rains in the drought period is not confined only to the rainy months. Both the Arabian Sea and Bengal currents show weakness. In the famine years, 1897, 1907, 1913 and 1918, the agricultural disasters were the result of the failure of both summer and winter rainfall. This will be clear from the following tables:—

Variation of Rainfall in the United Provinces, in 1896.

	June 1—August 31.		September.		October.	
	Variation from Normal.	Percentage Variation.	Variation from Normal.	Percentage Variation.	Variation from Normal.	Percentage Variation.
N.-W. P. ...	-4'27	-16	-5'82	-91	-1'47	-99
Oudh ...	-3'86	-15	-6'5	-95	-1'59	-99

Rainfall in United Provinces in Recent Drought Years, 1907, 1913 and 1918.

SOUTH-WEST MONSOON.

BENGAL CURRENT.

	JULY.			AUGUST.			SEPTEMBER.			OCTOBER.		
	1907	1913	1918	Normal	1907	1913	1918	Normal	1907	1913	1918	Normal
Meerut	4.53	5.58	1.95	9.05	6.8	4.85	5.50	8.92	0.02	0.74	0.30	4.79
Agra	5.56	3.85	1.02	8.50	9.85	2.23	5.40	8.48	...	.69	0.40	4.21
Robilkund	12.85	5.87	6.07	13.13	9.64	4.00	7.47	11.56	...	.86	1.02	6.36
Allahabad	5.74	5.35	1.51	10.23	14.13	5.06	8.59	10.4	.09	2.40	1.51	5.40
Jhansi	5.74	4.70	2.18	11.56	14.13	3.93	8.06	11.08	.09	1.01	1.48	5.75
Benares	7.39	9.49	4.47	11.69	14.72	12.8	13.99	11.55	1.73	7.35	5.75	7.13
Gorakhpur	6.49	10.97	7.85	12.92	9.12	11.21	10.94	12.47	3.39	5.38	5.13	7.70
Lucknow	5.86	6.46	3.55	11.00	8.03	6.36	7.05	10.79	0.6	1.91	3.22	6.09
Fyzabad	6.17	10.24	4.06	11.78	10.06	6.04	8.74	11.69	.42	2.92	4.17	7.30

When the south-west monsoon becomes weak it hardly penetrates as far as the United Provinces and the rainfall becomes most deficient in the Upper and Lower Doab as well as in Bundelkhand which normally depend upon the Arabian Sea current. Thus the Kharif cannot be sown at all in such areas and if sown it withers because of the early termination of the rain. At the same time the Bengal current becomes weak and penetrates little beyond the south-eastern and sub-montane tracts. The failure of the winter rain implies insufficient moisture in the soil for sowing the Rabi without irrigation. Over and above in a year of deficient rainfall the hot west winds commence from February and cause serious damage. It will be seen, therefore, that in a year of drought there is an abnormally early or abnormally abrupt termination of the Arabian Sea current which implies little or no wet season rain in the Western districts depending normally on that current. Secondly, there is deficient rainfall throughout the year, i.e., the Bengal current becomes also weak and though it might give some rains to the Benares and Gorakhpur divisions it hardly extends beyond Lucknow and Fyzabad. A timely rain in winter may ensure the rabi; but in a year of drought the storms which are often a characteristic of this season leave the bulk of the provinces untouched and divert to the Central Provinces. All this strengthens the presumption that the causes of the periodic variations of rainfall in India are general, being due to cyclical variations of the weather over a considerable portion of the earth's surface.

Sunspot Minima and Droughts in W. Africa and N.-W. India.

As a matter of fact the periods of solar quiescence are years of drought in the Sudan and West Africa as well as the United Provinces, in Abyssinia as well as Western or North-Western India. This will be evident from a comparison of sunspot occurrence with the level of the Lakes in Central Africa and the rainfall records in India during the more recent cycles of the sun's activity.

Years of Sunspot Minima.				Years of Sunspot Maxima.		
	1901	1913	1922*	1906	1917	1927
1. Levels of Lakes Victoria and Nyasa.	Minimum ...	Minimum ...	Minimum ...	Maximum ...	Maximum ...	...
2. Sudan	Drought ...	Drought and widespread famine.	Great drought ..	...	Excessive rainfall and floods in the Sudan and Nigeria.	...
3. Nile floods	Below Rainfall 37 m.m.	Below ..	Below ..	Rainfall 137 m.m.	...	...
4. Rajputana (Jai-pur).	Deficiency of 21"; -84 p.c.	Deficiency of 15"; -58 p.c.	Deficiency of 6"; -23 p.c.	...	Excess of 40" rainfall; +154 p.c.	...
5. Ind o-Gangetic Plain, West.	Deficiency of 9" rainfall; -29 p.c.	Deficiency of 13" rainfall; -37 p.c.	Excess of 5"; +16 p.c.	Excess of 4"; +135 p.c.	Excess of 10"; +33 p.c.	Excess of 6" +20 p.c.
6. Ind o-Gangetic Plain, East.	Deficiency of 14"; -34 p.c.	Excess of 2"; +49 p.c.	Excess of 12"; +29 p.c.	Deficiency of 8"; -7 p.c.	Excess of 7"; +17 p.c.	Deficiency of 2" -49 p.c.

* (We have taken 1922 as the year of sunspot maxima as the solar constant remained persistently much below the normal from 1922 February to December. It reached its minimum again at the beginning of 1923 but then rose rapidly from its low.)

*Rainfall increases in the monsoon season in the years of sunspot maxima.
(1910 normals are placed in brackets.)*

Sunspot num-
bers
(approximately).

1883.	65	Central Provinces 18'69 (33'4)	Hyderabad 9'25 (26'2)	Orissa 10'66 (44'5)	...
1894	80	United Provinces 11'66 (39'7)	Punjab 8'80 (15'4)	Bombay 7'51 (40'7)	Central Provinces 6'03
1906	58'7	Central India 8'85	Central Provinces 4'70	United Provinces 2'88	...
1917	96	United Provinces 7'44	Punjab 14'12	Rajputana 19'00 (19'5)	Bombay 5'29
				Central India 12'31	Central Provinces 7'2
					Hyderabad 6'92

Rainfall decreases in the monsoon season in the years of sunspot minima.

1878	10	Bihar & Orissa -4'70 (42'3)	United Provinces -5'09	Burma -29'48 (58'0)	...
1889 } 1901 }	10 34	Burma -4'08	Bihar & Orissa -8'99	United Provinces -4'08	...
1913	22	United Provinces -12'83	Rajputana -7'99	Central India -10'10	Hyderabad -5'99
1922	15	Bombay -4'30	Hyderabad -6'91	Assam -4'61	...
				Assam -5'87 (64'2)	...
				Rajputana -7'22	Bombay -6'11
					Hyderabad -4'26
					...

The solar constant shifted from the mean high of the 1917—20 swing to the low of 1921—24 recording the lowest mean of 1.913 in September, 1922. It is estimated that this indicates a decline of over 3.6 per cent in the solar temperature reaching the earth's atmosphere and as nearly as may be determined, corresponds to a decline of 4.6 degrees Fahrenheit in the earth's temperature. The year 1917 when the solar constant was at its height recorded an exceedingly heavy rainfall in Africa. The Sudan and Nigeria suffered from excessive rains; floods occurred in all parts of the area. There were heavy rains also in Northern and Western India. The monsoon advanced over the United Provinces during the second week of June, several days before the usual date and lasted later than usual in the province. There were heavy floods in the Ganges and Jamna valleys. The following are the rainfall records in some areas in India for 1917.

*Increases of the monsoon rainfall (July to September)
in 1917, a year of sunspot maxima.*

				1910 Normal.
United Provinces, East	...	...	6.09	34.44
United Provinces, West	...	...	8.63	32.98
Punjab, East and North	..	...	14.92	18.23
Punjab, South-West	...	...	11.99	6.58
Sind	...	...	6.01	5.28
Rajputana, West	...	...	14.00	11.74
Rajputana, East	...	..	21.49	22.91
Gujarat	...	...	8.78	31.46
Central Provinces	...	..	7.23	39.40
Central India, West	...	...	11.14	31.56
Central India, East	...	...	12.70	35.05
Hyderabad	...	..	6.92	26.17
Madras	...	...	4.20	27.19

In Jaipur State, Rajputana a district showed the phenomenal record of 65.8 inches rainfall in that year, its normal being 26.69. The low of 1921—24 had its similar reactions in Africa and India in the form of drought and scarcity. The years of 1918 and 1919 were years of famine in the United Provinces. The Season and Crop Report of 1918 observes "After four years of good and, in some cases, excessive rainfall another year of drought has to be recorded. The figures show that the failure was one of the most complete for which any record exists." In 1919 there was famine in Ashanti and the northern territories of the Gold Coast. Again in 1919—21 there was famine in the Central Provinces, Hyderabad and Madras in India. In 1920-21 again, the rainfall was in defect throughout the United Provinces. The Indo Gangetic plain west showed a deficiency of 7.62" and the plain east a deficiency of 13.9". In 1922 the rains were irregular and unequally distributed both in West Africa and Western India. From 1924 the solar constant again began to rise, and the maximum of this cycle was reached in 1926—1928. From this year we have stepped into a period of solar quiescence, and the sunspot minima will be expected in 1932—39. During this period 1929—1933 droughts and famines are likely to occur, and we have already some clear indications of famine in several tracts in India in 1929.

Possibilities of Prediction of Monsoon from the Study of Variations in Lake levels and Nile floods.

We have seen that the relations of air pressure over the tropical regions in South Asia and North-Eastern Africa determine the direction and volume of the south-east trades. Since the south-east trades extend themselves gradually across the equator there is a difference in period and character of the rainfall during the dry and wet monsoon periods. It is during April and May that the rainfall occurs most largely in the equatorial lakes area and in the adjacent districts. It is this rainfall which produces the first seasonal rise in the Nile during May and June. Lyons has

explained the fluctuations in the Nile floods and hence in the rainfall by graphing the Nile floods from 1868 to 1903 and, with this, the variations from normal of the atmospheric pressure at Cairo. Comparing his two charts he found that there was an 86 per cent agreement between deficient barometric pressure over North-Eastern Africa and excess precipitation as registered by the Nile flood; and conversely between excess above normal pressure and deficient rainfall. We have already seen that variations from normal pressure for Cairo correspond to those in meteorological stations in Western India from April to September. As the south-east trades extend as south-west winds over the Arabian Sea a part of the monsoon current is diverted to Abyssinia and the Sudan. Thus a monsoon exists over Abyssinia and the Eastern Sudan at the same time as in India.

We thus see that the probable intensity of the Indian monsoons may be gauged first by the level of the Lakes Victoria, Albert and Nyasa, and secondly, by the first seasonal rise of the Nile, these occurring during April, May and June. On the other hand, the South-West monsoon establishes itself in India in the succeeding three months.¹⁹

Area.			Normal Date of Commencement.		End.	Normal Period.
Bombay	...	...	June	5	October 15	133
Central Provinces	...	...	"	10	" 15	128
Central India	...	...	"	15	September 30	108
Rajputana	...	...	"	15	" 20	98
Bengal	...	...	"	15	October 31	139
Bihar	...	...	"	15	" 15	133
N.-W. P. and Oudh	...	...	"	25	September 30	98
East Punjab	...	...	July	1	" 15	77

¹⁹ Ham : *Handbook of Klimatologic*, p. 214.

Already the character of the Indian monsoon has been for the past several years predicted with considerable success some weeks in advance by the study of the pressure conditions far to the westward, in Palestine in particular. It has been found that variations in Lake Nyasa are all much greater than the corresponding changes in the levels of Lakes Victoria and Albert and they are large also even as compared with the greater variations associated with the sunspot effect.

In view of the sympathetic variation in the levels of the Lake Nyasa and Lake Victoria, in the floods of the Nile and the relation of these to sunspot activity, it is probable that marked success in forecasting the period and character of the Indian monsoon currents will follow a closer study of the effects of solar radiation in South Africa and in the islands of the Indian Ocean which affects the volume and intensity of the south-east trades and the south-west monsoon. Clayton has reported marked success in short-period forecasts of the weather in Buenos Aires on the basis of the daily variation in sunspot activity as observed at the solar observatory in Chili. He has made forecasts on this basis for several years and with sufficient apparent success to lead the Argentine Government to relieve the Smithsonian Institution of the cost of maintaining this observatory.²⁰

That there is a periodicity of rainfall and a fairly close agreement between sunspot activity and abundant rainfall or drought in the Sudan has already been referred to. A close study of the comparison of sunspot occurrence with the rainfall records in India seems very necessary. The Lockyers attempted nearly three decades back at a correlation of solar conditions with those of the Indian rainfall. Their view was that 'pulses' of heavy rain in India occur close to the times of sunspot maxima and minima,

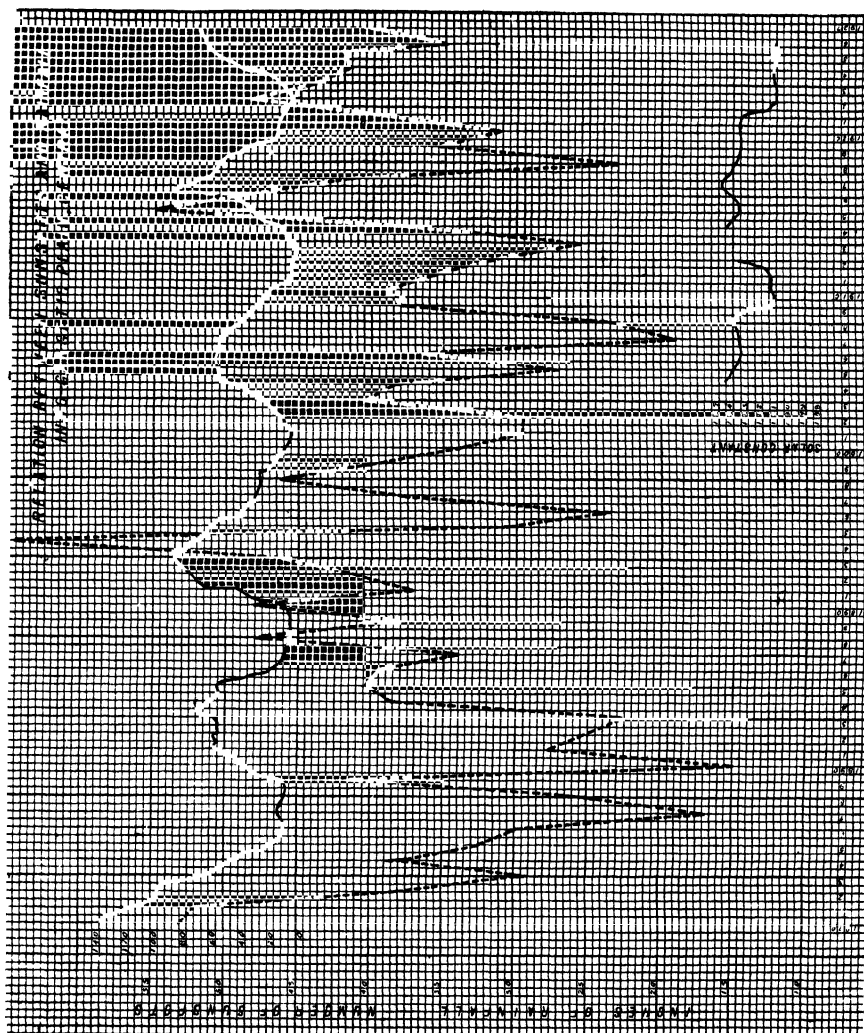
²⁰ Clayton: Variation in Solar Radiation and the Weather Smithsonian Misc. Colls., Vol. 71, No. 3, quoted in Visser: Effects of Tropical Cyclone upon the Weather of Mid. latitudes, Geog. Rev. January, 1925.

while during the intervals between the pulses scanty rainfall or drought is to be feared. Walker thinks that though the results of such comparison are in the directions required by the theory they are decidedly too small to justify it as a method of forecasting.

It appears, however, that in Northern and Western India, where the south-west monsoon is responsible for the major portion of the normal rainfall, the forecast of rainfall and agricultural cycles is full of promise because (1) this rainfall varies inversely as the atmospheric pressure, (2) the pressure variations are usually simultaneous over wide areas in the Africo-Asiatic system, (3) there is a great uniformity of conditions relating to the character and period of this rainfall over wide areas.

Relation between Sunspot Occurrence and Rainfall closer in the Indo-Gangetic Plain, West.

We have taken for instance, the climatic districts in the United Provinces and find a fairly close correspondence between sunspot occurrence and rainfall. The relationship is closer in the Indo-Gangetic Plain West than in the East. It will appear from the following table that in the Indo-Gangetic Plain every sunspot minimum has been accompanied by a serious drought, and that all the other droughts have closely followed the sunspot maxima. There is a lag of a year or two in case of droughts which follow the maximum sunspot activity; while droughts at sunspot minima very closely precede or correspond with the minima years. In every case droughts occur in the period of diminishing sunspot activity.



Sunspots and Droughts in the United Provinces.

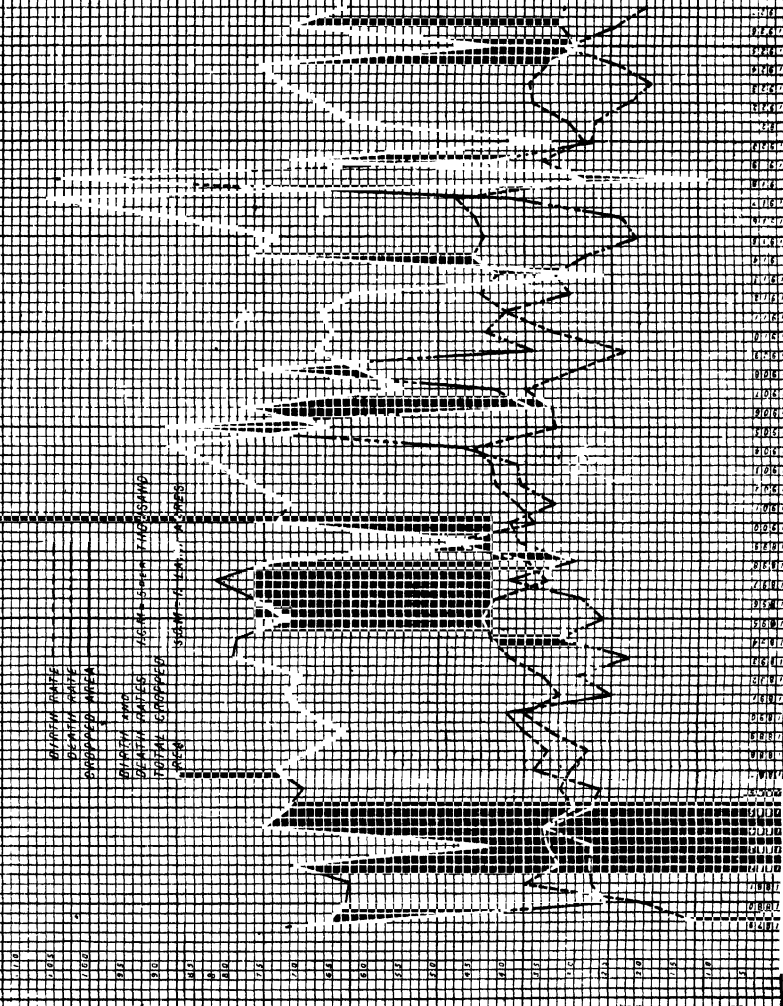
Years of Drought	Rainfall Departures Inches. Ganges Plain		Dates of sunspot maxima and minima Years marked with an asterisk are sunspot minima years.	Difference between the numbers in (1) and (8)
	West	East		
1877-78	-34.1	-18.4	1878.9*	-1
1878-79	- 6.2	-12.4		Nil
1883-84	15.0	-13.9	1883.9	Nil
1889-90	4.7	+ 1.3	1889.6*	Nil
1895-96	- 2.7	8.0	1894.1	+1
1896-97	-12	-16.5	,	+2
1901-02	- 9.84	-14.6	1901.7*	Nil
1907-08	-12.69	-14.23	1906.4	+1
1913-14	-13.5	+ 2	1913.6*	Nil
1918-19	-17.31	- 9.06	1917.6	+1
1920-21	- 7.62	- 7.4	1921-22*	-1

The following table would give the rainfall of typical districts in distinct rainfall areas of the Province in years of sunspot minima and maxima.

Rainfall in Years of Sunspot Minima and Maxima.

District.	Normal Rainfall.	Sunspot Minima						Sunspot Maxima.					
		1868	1878	1889	1901	1913	1921	1871	1884	1894	1906	1917	1927
Muttra	23	-7.8	-6.1	-8	-9.2	-12.9	-5.0	+4.1	+5.1	+7.0	+3.6	+17.1	+2.5
Agra ...	25	-7.5	-8.9	-2.4	-7.8	-15.8	-6.0	+4.2	+3.1	+9.4	+1.6	+16.1	+2.5
Jhansi	34	-18.3	-13.3	-11.1	+5.8	-19.6	-15.0	+12.0	+12.4	+19.0	+10.2	+13.8	+11.2
Meerut	28	-13	-7.4	-3.7	-9.2	-8.9	-6.0	+6.5	+10.1	+13.6	+8.9	+7.2	3.5
Allahabad	37	-12.5	-16.0	-3.4	-5.2	-11.6	-3.0	+21.6	+12.1	+29.7	-2.0	+4.3	3.6
Benares	39	-11	-14.7	-1.4	-13.0	+6.2	-2.0	+12.3	-5.5	+17.5	+9.3	+16.8	3.6
Gorakhpur	48	-23	-14.2	14.4	-9.3	-45	-7.0	+19.3	-1.5	+13.4	+4.2	+5.7	+0.6
Cawnpore	31.85	...	-9.5	-1.3	-7.0	-13.8	-11.0	+3.1	+11.6	+27.2	+4.9	+8.2	+7.0
Number of sunspots	...	...	10	6	24	4	..	140	60	55	60	100	...

RELATION BETWEEN HARVESTS AND VITAL STATISTICS MONTANA DISTRICT



Sunspot Numbers and Droughts in the U.P.

If we consider the years from 1868 to 1925, for which reliable figures of rainfall, district by district, exist, a satisfactory method of testing the correlation between solar activity and variation of rainfall will be to pick out the years of large and of small sunspot numbers and find out the increase or decrease from the normal. We have taken five districts and for the years of large sunspot numbers we have taken—1869, 1870, 1871, 1872, 1873, 1893, 1894, 1895, 1925; for the years of small numbers we have taken—1868, 1875, 1876, 1877, 1878, 1879, 1880, 1887, 1888, 1889, 1890, 1891, 1921, 1922

The following table will show the variation from normal rainfall:—

District	Normal Rainfall	Average of 9 years of large sunspot numbers	Variation.		Average of 25 years of small sunspot numbers.	Variation.	
			Inches	Percentage		Inches.	Percentage.
		Inches			Inches		
Muttra .	25	27.7	+4.7	+20.4	19.7	-3.8	-13.0
Agra .	27*	29.8	+2.8	+10.4	23.4	-8.6	-15.7
Allahabad ..	39*	46.6	+7.6	+19.5	37.1	-1.9	-5.0
Meerut ...	28	32.11	+4.1	+14.3	26.53	-1.47	-5.4
Jhansi ...	37.5	40.1	+2.6	+5.4	33.1	-4.4	-10.8
Benares .	39.6	40.26	0.66	-1.7	* 37.5	-2.1	-5.0

* Normal according to the Director-General of Observatories, India.

Comparing the sunspot numbers with the rainfall records of six districts in the United Provinces for sixty years we have found that when the relative sunspot numbers were below 15 a drought period occurs, the deficiency of rainfall ranging from 25 to even 40 per cent of the normal. The deficiency of rainfall continues though to a less extent until we reach 25 sunspots when the rainfall oscillates about the normal. As the relative numbers increase there is an increase of rainfall and the increase is marked when these exceed 60 beyond which the agricultural cycle is on its way to the peak. Clements who is working on the relation of drought to sunspot numbers found from the rainfall records that when the relative numbers exceeded eighty a drought period of two or more years followed in the Western United States.²¹ We have already seen that there is a variation of precipitation due to solar radiation in opposite ways in different area of the earth. At a number of about 60 the eight-yearly transit of Venus seems to effect the rainfall and reduce it to deficiency. But beyond 60 the rainfall is unaffected by the transit of Venus and increases with increasing sunspots.²²

²¹ Drought periods and climatic cycles *Ecology*, July, 1921, quoted in Douglass *Climatic Cycles and Tree-Growth*, Vol. II, p. 115.

²² Moore laid great stress on the transit of Venus as the basis of the 'generating cycles' in America.

Years of Venus Transits.

District.	Normal Rainfall.	1865	1873	1881	1889	1897	1905	1913	1921	
Muttra ..	23	16'66	-6'4	27'42	22'28	-8	28'93	10'13	-12'9	20'25
Agra ..	25	26'60	1'6	34'9	22'6	-4	35'9	9'14	-15'9	26'54
Jhansi ..	34	22'2	-11'8	37'5	22'9	-41'1	31'6	14'46	-19'6	34'28
Meerut ..	26	20'7	-7'3	22'8	24'3	-3'7	30'6	19'18	-8'9	31'87
Allahabad ..	37	34'2	-2'8	28'0	30'8	-3'4	42'6	25'44	-11'6	31'64
Gorakhpur ..	48	38'9	-9'1	50'5	62'4	+14'4	52'1	47'55	-1	51'61
Asamgarh ..	41	...	...	36'8	46'6	+5'6	43'13	43'22	...	46'83
No. of Sunspots ..	...	60 (?)	90	45	6	35	57	4		
Sunspots Minima ..	1867.2	1878.9	1889.6	1901.7	1913.6					
Maxima ..	1870.6	1883.9	1894.1	1906.4	1917.6					

The above table shows that the eight-yearly transits of Venus are associated with cycles of deficient rainfall. When the Venus cycle is synchronous with minimum sunspot activity, as in the year 1897, the deficiency is the greatest. The planet Venus turns on her axis in the same time that she revolves round the sun, in consequence of which she always turns the same face to him. Powell describes her as follows: "One face baked for countless æons, and still baking, backed by one chilled by everlasting night, while both are still surrounded by air, must produce in droughts from the cold to the hot side of tremendous power. A funnel-like rise must take place in the centre of the illuminated hemisphere, and the partial vacuum thus formed would be filled by air drawn from its periphery which in its turn would draw from the regions of the night side. Such winds would sweep the surface as they entered, becoming less superficial as they advanced, and the marks of their inrush might well be discernible at the distance we are off." Venus is nearly three times nearer the Earth than the Sun is from the Earth, and thrusts herself at intervals of eight years almost exactly in the direct path of solar radiation. Prof. Moore suggests that the storm-racked planet may create a disturbance in the inter planetary medium which affects the Sun's radiation on its way to the earth, and causes the eight year generating cycle, which is the source of economic cycles in Europe and America.²³

The Eleven-half Year Cycle

There are cyclical fluctuations in agriculture in Northern India due to drought and rainfall and an examination of sunspot minima and maxima and variation of rainfall from the normal over a period of more than sixty years clearly indicates that the North-Western economic and meteorological cycles are synchronous with the cycle of solar activity and quiescence. The average length of the

²³ Moore : The Origin of the Eight-Years Generating Cycle, November, 1921.

interval from one year of greatest quiescence to the next is nearly eleven and a half year and the range in length of this interval is from 10 to 13 years. Thus the scarcity or famine or prosperity cycles follow every eleven half-years though sometimes they may recur between 10 and 13.

1. Minimum sunspots below 15 are accompanied by a deficiency of rainfall from about 25 to even 40 per cent of the normal. Such sunspot minima when they continue for four or five years co-exist with a drought or famine

2 This deficiency begins to decrease up to a limit of about 25 sunspots, when the rainfall oscillates about the normal.

3. As sunspots increase, there is an increase of rainfall except at a number of about 60 where the eight-yearly transit of Venus seems to affect the rainfall and reduce it to deficiency.

4 Beyond 60 the rainfall is unaffected by the transit of Venus, and increases with increasing sunspots.

The statistical analysis shows that only two decreases of rainfall in a period of forty-four years could not be correlated with sunspot minima or with the transit of Venus.

Droughts in Bengal.

	Departures in the monsoon season, June to September.	Rainfall Departures.							Total.	Dates of sunspot maxima and minima.	Difference between (1) and (4).
		January.	February.	March.	April.	May.	October.	November.			
1879	+ 2.95	...	...	...	...	...	..	...	...	1878.9*	Nil *
1884	- 10.24	- 0.42	+ 0.06	- 0.09	+ 0.87	+ 1.20	+ 0.67	+ 0.05	- 8.09	1888.9	+ 1
1889	- 0.73	+ 0.46	+ 0.20	- 1.19	- 1.28	- 3.50	0	+ 2.56	- 3.63	1889.6*	Nil *
1891	- 15.94	- 0.24	+ 1.23	+ 1.91	- 0.71	+ 3.48	- 2.91	+ 0.51	- 10.83	...	+ 2
1896	- 9.83	- 0.18	- 0.47	- 1.14	- 1.11	+ 1.32	- 3.98	- 0.61	- 16.14	1894.1	+ 2
1901	- 1.69	+ 0.28	+ 0.10	- 1.34	- 0.23	- 1.75	- 1.32	+ 2.39	- 3.72	1901.7*	Nil *
1907	- 6.67	- 0.37	- 0.12	+ 1.75	+ 0.71	- 1.30	- 3.26	- 0.61	- 9.47	...	+ 1
1908	- 7.20	+ 0.40	- 0.35	- 1.19	- 1.41	- 0.77	- 2.12	- 0.27	- 3.87	1906.7	+ 2
1914	- 7.62	- 0.43	+ 1.20	- 0.56	+ 2.24	+ 2.51	- 3.04	- 0.55	- 5.53	1913.6	+ 1
1923	- 4.38	- 0.45	+ 1.32	- 1.29	- 0.38	- 1.08	- 1.53	+ 0.10	- 7.78	1922.23*	Nil *

* Years marked with an asterisk are those of sunspot minima.

Droughts in Bihar.

	(1) Departures in the Monsoon season June to September.	(2) Rainfall Departures.							(3) Dates of sunspot maxima and minima.	(4) Difference between the number in (1) and (3).
		January.	February.	March.	April.	May.	October.	November.	December.	
1878	- 2.82	+0.36	-0.34	-0.35	+0.34	+1.55	-1.99	+0.84	-0.10	- 2.71
1884	- 12.65	-0.60	-0.59	-0.43	-0.43	-0.75	+2.04	-0.18	-0.10	- 13.47
1891	- 11.71	+0.65	+0.11	+2.20	-0.47	+2.00	-1.05	-0.12	-0.10	- 8.49
1896	- 8.37	-0.53	-0.68	-0.47	-0.52	+0.14	-2.38	+0.09	+0.20	- 12.52
1901	- 10.23	+1.31	+0.04	-0.05	-0.50	+0.37	-1.95	+0.25	-0.09	- 10.85
1903	- 11.34	-0.40	-0.38	-0.31	-0.39	-1.50	+3.41	-0.18	-0.09	- 10.98
1908	- 15.22	+0.01	+0.75	-0.24	-0.58	-0.76	-1.43	-0.18	-0.08	- 17.73
1914	- 3.77	-0.59	+0.11	-0.14	+0.62	+1.70	-1.98	-0.18	-0.05	- 3.28
1923	- 9.75	-0.56	+0.82	-0.40	-0.19	-0.82	+0.42	-0.13	-0.07	- 10.69
										1878.9*
										1883.9
										1889.6*
										1894.1
										1901.7*
										..
										1906.7
										1913.6
										1922-23*

Both in Bihar and Bengal droughts occur in years of sunspot minima as in the United Provinces and there is also a lag usually of a year or two after years of sunspot maxima for other droughts. But unlike the United Provinces droughts after sunspot maxima are reached are severer and more prolonged. In other regions also, *e.g.*, Jamaica droughts occurring after the maxima show a greater deficiency of rainfall and last longer than those occurring after the minima.

(1) See Pickering. The Relation of Prolonged Tropical Droughts to Sunspots; Monthly Weather Review, October, 1920.

Decreases of the Monsoon Rainfall (June to September) in years close to sunspot minima and maxima.

Years of Drought.	Siml.	Rajputana West.	Rajputana East.	Gujarat.	Punjab East and North.	Punjab South-West.	United Provinces West.	Difference between drought years and years of sunspot minima or maxima.
1877	-3.01	-9.30	-15.73	-18.76	-13.38	-0.89	-25.65	-1
1885	-2.47	-3.47	+3.81	-4.92	-4.31	-2.19	...	+2
1899	-5.25	-9.13	-8.55	-23.13	-9.00	-4.03	-7.17	-2
1901	-3.86	-5.51	-7.79	-13.08	-4.07	-2.43	-3.31	Nil*
1905	-3.81	-6.79	-13.90	-6.07	-5.94	-1.29	16.11	-1
1911	-4.95	-7.75	-7.10	-19.05	-7.24	-3.32	-7.94	-2
1918	-4.30	-9.14	-12.88	-20	-9.56	-3.25	-16.13	+1
1920	-4.25	-3.95	-4.04	-8.52	-6.26	-2.49	-6.07	-2*
1910 Normal ...	5.28	11.74	22.91	31.46	12.83	6.58	32.98	

In the Peninsula (Berar, the Deccan, Mysore and Madras) droughts occur in the periods of diminishing sunspot activity and in all cases precede one or two years before the sunspot minima. There are also less severe droughts closely following sunspot maxima as in the Indo-Gangetic Basin.

Rainfall decreases in the monsoon season preceding sunspot minima.

	Difference between drought years and years of sunspot minima.	Berar.	Bombay Deccan.	Hyderabad North.	Hyderabad South.	Mysore.	Madras Deccan	Madras South East.	Madras Coast North.
1876	-2	-4'32	-6'90	-9'52	-9'06	-5'67	-6'94	-2'18	-3'84
1877	-1	-9'01	-0'25	-12'07	-9'21	-1'31	-2'85	-0'84	-5'47
1888	-1	-3'47	+1'62	-7'93	-8'23	-0'84	4'80	-1'75	-6'92
1899	-2	-17'54	-10'90	-15'35	-9'42	-4'95	-3'59	-3'89	-6'69
1900	-1	+1'73	-3'10	-2'21	-5'96	-1'63	-4'13	-0'25	-1'28
1911	-2	-7'73	-7'71	-6'08	-5'18	-3'26	-3'49	-2'19	-1'57
1912	-1	-3'76	-1'11	-8'51	-4'13	+7'03	-0'13	-2'31	+3'67
1922	-1	+1'42	-6'04	-5'69	-8'13	-6'36	-3'22	-2'09	-2'25
Difference between drought years and years of sunspot maxima.									
1855	+2	-5'08	-2'39	-5'37	-3'19	-3'36	-2'75	-3'52	-2'68
1896	+2	-4'38	+5'20	-4'11	-6'92	+8'36	-5'33	-1'21	-6'85
1907	+1	-3'59	+2'90	-5'38	-2'73	+4'63	-3'16	-1'86	-1'97
1918	+1	-13'63	-13'42	-12'80	-9'54	-10'47	-5'04	-5'14	-3'59
1910	Normal.	28'10	24'41	30'51	23'38	22'27	25'03	12'01	25'03

Summary and Corroboration.

Summarising the data of the relation between droughts and sunspots, we deduce the following provisional results:—

1. One or two years preceding the sunspot minima.	Probability of droughts in the Peninsula and the North-West Dry Area.
2. Years of sunspot minima.	The Indo-Gangetic Basin; severer in Western and Central portions.
3. One or two years following the sunspot maxima.	The Indo-Gangetic Basin, the North-West Dry Area and the Peninsula.

It will thus appear that a serious drought in the Peninsula is followed by one in Northern India in the next year. This was pointed out long ago by Blanford.²⁴ Further, Indian droughts have another remarkable characteristic, *viz.*, that they appear frequently in pairs.

Years of sunspot minima.		
1784.7	1782	Drought in Bombay and Madras.
	1783	Drought in Upper India.
	1802	Drought in South Hyderabad and Deccan.
	1803	Drought in the United Provinces and Central India.
1823.3	1823	Drought in Madras.
	1824	Drought in Bombay, chiefly Guzerat and North Deccan.
	1832	Drought in Northern districts of Madras etc.
1833.9	1833	Drought in North part of Bombay, Rajputana, Punjab and the United Provinces.
1878.9	1876	Drought in all parts of Madras, Hyderabad etc.
	1877	Drought in the United Provinces, Central Provinces, Punjab.
	1888	Drought in Berar, Bombay, Deccan and Hyderabad.
1889.6	1889	Drought in Bihar and Bengal.
	1899-1900	Drought in Berar, Bombay, Deccan and Madras; also in Rajputana and Gujerat.
1901.7	1901-1902	Drought in the Central Provinces, Berar, Bombay, Rajputana and Central India.
	1911-12	Drought in Berar and Bombay; also in the Punjab and Gujerat.
1913.6	1913-14	Drought in the United Provinces and Central India.

The above correspondence does not apply to the severe droughts following years of sunspot maxima, which affect simul-

²⁴ Blanford : The Climates and Weather of India and Ceylon, p. 81.

taneously every part of India, Northern India as well as the Peninsula.

1884, 1885, 1895, 1896, 1907 and 1918.

In Jamaica droughts have been observed to follow closely after a sunspot minimum or maximum. It appears that droughts occurring after the maxima show a greater deficiency of rainfall, and last longer, than those occurring after the minima. Again, at times of sunspot minima the conditions of pressure over the west coasts of the European and North American continents are such that high pressure in the Western United States corresponds with low pressure in Western Europe and *vice versa*. At times of sunspot maxima the reverse is the case, *i.e.*, weather conditions in the two regions are similar, fine weather being experienced simultaneously and stormy weather likewise occurring at the same time in both places.²⁵

What is the precise logical connection between sunspot and droughts is not clearly understood. The accepted hypothesis is that there is diminished atmospheric condensation with decreasing sunspots, and thus at sunspot minima droughts occur in many areas.²⁶ As regards droughts coming just after the sunspot maxima, it is pointed out that the general circulation of the atmosphere is intensified by the greater amount of heat which probably enters the atmosphere at times of sunspot maxima. Thus the trades, sharing in this general intensification, would produce first a plus and then a minus departure in water surface temperatures and in the course of six to ten months the drought effects would become noticeable first in north-eastern Brazil, then in the West Indies, and similarly first in equatorial Africa and then in India. Since the maximum intensity of the general circulation would necessarily

²⁵ S. Hanzbk.

²⁶ Domo: Fluctuations in the values of the Solar Constant, Monthly Weather Review, 1925.

lag after the maximum of sunspots, the total delay in the occurrence of the worst drought conditions may be easily explained in this manner.²⁷

In seeking a possible relation between extreme droughts and the sunspot numbers for the whole of India we find that the periods of droughts entered on minima of 15 or less spots, while the maxima of the other periods were between 50 and 60. Drought and famine are more widespread if the minima represent less than 4, while abundant or excessive rainfall over a large part of India occurs when the sunspots number more than 80. The extent to which the sunspot occurrence may be used in predicting drought or abundant rainfall in India can be governed only by actual trial though of course the above statistical analysis clearly proves the importance of the cycle of solar activity as the basis of long-range forecasting. It is now held by some scientists that changes in solar radiation are not the result of changes in sunspots but that both are due to certain periodic overturn of material and temperature occurring beneath the solar surface in connection with magnetic storms. Thus the changes in solar radiation need not necessarily be proportional to changes in sunspots. Besides the size and position of the sunspots have also to be taken into account. Empirical formulæ have, however, been devised to express the relation between sunspot activity and the solar constant and it is now held that increase in sunspot activity gives rise to change in the absorbing power of the outer layers and corona due to the eruption of meteorial and hence alters the effective radiation.

It is of great interest to observe in this connection that severe droughts have been found to occur in equatorial Africa, and the Sudan in years of sunspot minima, to precede these by a year or two.²⁸ On the other hand, it has been observed that in the Western States in America, droughts occurred in years of sunspot

²⁷ C.T. Brooks, *Monthly Weather Review*, October, 1920.

²⁸ Dixey : *Lake Level in Relation to Rainfall and Sunspots*, *Nature*, November, 1924.

maxima or to precede these by a year or two. A critical drought period occurred here at each sunspot maximum for which the spot number was greater than half the number known for the year maximum.²⁹

We thus see that there are cyclical fluctuations in agriculture in India due to drought and rainfall and the correspondence of these agricultural cycles with the solar radiation is closer in North-Western and Western India which depend upon their agricultural water supply chiefly upon the oceanic currents of great volume and elevation from the Arabian Sea and the Bay of Bengal. The volume and intensity of these humid currents depend, as we have stated, upon pressure variations in the Africo-Asiatic summer infrabar which, again, depend upon a relation between atmospheric pressure and solar phenomena. A comparison of sunspot occurrence with the variation of rainfall from the normal over a period of more than 60 years in the Indo-Gangetic Plain East and West clearly indicates that the Indian agricultural and rainfall cycles are synchronous with solar activity and quiescence.

Sunspots and Historic Famines

The scarcity or famine and prosperity cycles follow usually the sunspot cycle of 11.30 years and its double and triple values. The triple period which is essentially Bruckner's cycle has also operated. Considering the question of drought in years of sunspot minima and periods of decrease we find that the epochs of sunspot minima and famines in India closely correspond. All the important famines from the beginning of the seventeenth century when we begin to have data of sunspot occurrence have been tabulated below :—

²⁹ Clements : Drought Periods and Climatic Cycles, Ecology, July, 1921.

Years of Famine.	Area affected.			Wolfer's Table of sunspot minima, and epochs of sunspot decrease.
1614-15	Punjab as far East as Delhi	...	...	1615--19; Minima 1619
1618-19	Coromandel Coast	...	...	...
1630-31	Vijayanagar ..	...	...	...
1633-34	Deccan, Gujarat	...	...	...
1635	Surat, Goleunda	...	...	1626--34; Minima 1634
1642-43	Orissa and Bengal	...	...	1639--45
1645-46	Southern Section of Coromandel Coast.			Minima 1645
1647	Rajputana	...	...	...
1648	Coromandel Coast	...	...	..
1650	Oudh, Gujarat and almost all over India.			1649--55; Minima 1655
1656	...			...
1661	All parts of India	...	...	1660--66, Minima 1666
1705--08	Deccan	...	...	1693--98; Minima 1698
1709--11	Scarcity about Madras	...	...	1705--12; Minima 1712
1717-18	Coast and Bay districts Ahmedabad and Surat.			...
1722	Bombay	...	...	1718--1723; Minima 1723--5
1728--30	Madras and Bombay	...	...	1727--34
1731--34	Madras	...	...	Minima 1734
1737	Madras	...	...	1738--45
1747	Bombay, Surat, Ahmadabad Aurangabad			Minima 1745
1769-70	Bengal	...	...	1761--66; Minima 1766
1782	Bombay and Madras	...	...	1778--84
1783	Northern India	...	...	Minima 1784
1790--92	Maharashtra	...	...	1788--98; Minima 1798
1823	Madras	...	...	Minima 1823

Note.—E. W. Mairder calls attention to the prolonged dearth of sunspots between 1645 and 1715.

Years of Famine	Area affected	Wolfer's Table of sunspot minima, and epochs of sunspot decrease.
1824	Bombay, Gujarat North Deccan ...	...
1832	Northern Madras ...	1829-33, Minimum 1833
1838	Bombay, Rajputana, Punjab and the United Provinces.	...
1837-38	The Upper Ganges Valley ...	...
1860-61	Provinces of Agra and the Punjab, Rajputana and Cutch.	1860-67; Minima 1867
1865-67	Orissa, Madras and Bombay ...	...
1868-70	Rajputana, Provinces of Agra and Western India.	...
1873-74	Bihar, Bengal and the United Provinces.	1870-78; Minima 1878
1876-78	Madras, Mysore, Hyderabad, Bombay, the Central and United Provinces and a small tract in the Punjab.	1883-89; Minima 1889
1888-89	Bihar and Madras ...	1894-1901; Minima 1901
1896-97	The United Provinces, the Central Provinces, Bihar, Hissar district of the Punjab together with portion of Bengal, Rajputana, Central India and Hyderabad.	
1899-1901	The United and Central Provinces, Berar, Bombay, Ajmer, Rajputana, Baroda, Central India, Kathiawar and Hyderabad.	
1907-08	The United Provinces, Bundelkhand and the south of the Agra Divisions.	Period of sunspot decrease 1894-1901
1913-14	The United Provinces, Jhansi Division and Rohilkhand and in parts of the Agra and Allahabad Division.	Minima 1901. Period of sunspot decrease 1906-13
1919-21	Central Provinces, Hyderabad, Madras.	Minima 1913. Period of sunspot decrease 1917-23

Eleven-year Cycle in Prices

An analysis of the index numbers of prices in India, 1861—1918, shows that Indian economic activity largely depends in its ebb and flow upon the deficiency or abundance of the south-west monsoon, and indeed, we find that the index numbers show an eleven-year cycle. Thus maxima of prices occur at 1867, 1878, 1889, 1901, 1913 and are synchronous with the rainfall cycles already examined.

We have already traced the close correspondence between rainfall and the total cropped area, including the area cropped more than once in the more important districts of the Ganges Plain as well as in its different ecological areas. No factor is more important in Indian agriculture than the amount and distribution of rainfall. The graphs enclosed the correspondence between harvests and vital statistics showing indirectly the influence of rainfall upon public health. Thus the meteorological, agricultural and vital cycles correspond in India. The data of sunspot minima are (1) approximately synchronous with the minima of the crop cycles; (2) correspond with the minima of cycles of natality and maxima of mortality; (3) are also approximately synchronous with the cycles in Indian weighted Index numbers from 1861 to 1918. It is thus that so remote a phenomenon as the cycle in solar activity governs through its influence on pressure variations over such wide areas of the earth's surface as the Asiatic continent and the Indian Ocean the fortunes of crops and births and deaths in the plains of India.

Need of Co-operative Investigation.

The recent studies of world weather with special reference to periodic variations in temperature pressure and rainfall, the conclusions of astrophysics with regard to variations in the solar constant, the study of climatic cycles as recorded in tree rings,—all these are recent approaches to the central theme of solar and

climatic cycles with an ultimate view to seasonal and long-range forecasting. The co-operation of meteorology, astrophysics and ecology is essential in order that a basis of prediction may be found. Probably the most important and interesting field of such co-operative investigation is India, which, being a tropical peninsula attached to the huge Asiatic land mass in the middle latitudes and projected into the warm Indian Ocean, shows extremely uniform conditions of rainfall. The peninsular character of India coupled with the extreme seasonal heating and cooling of the Asiatic land mass, serves to emphasise the infrabaric-monsoon nature of rainfall in India, whereas the same phenomenon exists in other tropical regions but to a less striking marked degree.³⁰ Thus the changes of rainfall and trees in India are more free from short variations than in most regions of the earth. As local and accidental variations play a small part in determining the character of the Indian monsoon rainfall, the study of solar and rainfall cycles is less difficult here than elsewhere, while the effects of these cycles on vegetation; agriculture as well as the entire economic life are more far-reaching and critical than in most agricultural countries.

³⁰ As, for instance, the Sudan and West Africa. See the *Geographical Review*, October, 1926, pp. 588—596.

THE LATE SIR GANGA RAM'S GENEROSITY

In 1925, the late Sir Ganga Ram, Kt., C.I.E., M.V.O., B.B., Lahore, with that generosity for which he is now so well-known, handed over to the Punjab Government, a sum of Rs. 25,000, for the endowment of a prize to be awarded for a discovery, or an invention, or a new practical method which will tend to increase agricultural production in the Punjab on a paying basis. The property has been vested in the Treasurer of Charitable Endowment for the Punjab and is administered by a Managing Committee.

The interest accruing from the property is payable to the Managing Committee.

The prize is known as the Maynard Ganga Ram prize and is to be awarded every three years provided a satisfactory achievement is reported to the Managing Committee. It will be of the value of Rs. 3,000 and the competition is open to all throughout the world. Government servants are also eligible to compete for it.

Wide publicity was given in 1926 and 1927, to the proposed award by advertisements in newspapers both in India and abroad, and by other means, and applications were invited by the 1st January, 1929. The response has, however, been extremely poor and consequently it has been decided to extend the time for submission of the applications to the Director of Agriculture, Punjab, up to 31st December, 1929. The Managing Committee reserves the right of withholding or postponing the prize if no achievement of sufficient merit is submitted.

The Punjab with its many rivers, its fertile soil and warm sun, has great possibilities for agricultural development, which is of the utmost importance as practically the whole population of the province, both urban and rural, depend either directly or indirectly on its agriculture.

REVIEWS OF BOOKS

ECONOMIC ORGANIZATION OF INDIAN VILLAGES, by N. G. Ranga, B.Litt. (Oxon.), two volumes. Printed at the Vani Press, Bezwada, 1926.

In these two volumes are given the results of an intensive economic survey carried on by Mr. Ranga in a number of villages in the Guntur districts of the Madras Presidency. Volume I contains the facts about seven villages, namely—Iteru, Affikatatla, Brahmana, Kokuru, Sreerangaputram, Thwrumella and Trumtaturu; the whole of volume II deals with three villages only, namely—Reppalapad, Takkellapad, and Kakumanu. His enquiry into the economic conditions of these villages is thorough, and in the collection of the material the author must have taken a great deal of pains. They throw a flood of light on the indebtedness of the ryots, the fragmentation of holdings, the standard of living, wages, drinking, education, extravagance in dress, and on various social ceremonies. The mass of statistics regarding farm costs in the first volume, and regarding village budgets in the second is very instructive reading.

The author deserves to be congratulated on the care and energy shown in the collection of materials and in the preparation of these volumes. His suggestions for the material advancement of the agriculturists in the locality studied are well worth serious consideration.

B. G. B.

AU PAYS DE TAGORE, by Prof. Arthur Geddes. Publishers : Librairie Armand Colin, Paris. Price 25fr.

This is a remarkable study in French of the rural life and the geographical conditions of eastern Bengal by a distinguished sociologist who was, for some time, Professor of Sociology at the University of Bombay. The book has an introduction by Prof. A. Demangeon of the University of Paris and a preface by the author himself, both of which give the reader an insight into the motive and the spirit which animated the study. The book, as was to be expected, is full of the atmosphere of sympathy, understanding and keenness for scientific research. Prof. Demangeon points to the introduction of the Permanent Settlement and the invasion of Manchester and Sheffield goods into Bengal as two of the chief causes of the rural decline of that Province and is happy to think that the task of discussing the possibilities of rural reconstruction, has been essayed in this book

by a European scholar of the type of Prof. Geddes who believes in the co-operation of the Eastern and Western civilizations for the well-being, the peace and the harmony of mankind. The author has made a close study of the natural conditions of Bengal and of the philosophy and the religion of the people of the Province and the work is the outcome of the investigations made by him on the spot. The friendly company of two such worthy sons of India, peculiarly representative of Hindu culture, as Rabindranath Tagore and Sir Jagdish Bose, was peculiarly conducive to a correct appreciation of the different aspects of life in rural Bengal—the subject of study, and Shantiniketan provided a suitable background for the whole picture. We recently have had a number of village inquiries in India, some of which are good. But here we have an inquiry by a western social philosopher deeply interested in rural life of India—with ideals of his own.

This study of the country round Bolpur and of the Birbhum district and of Eastern Bengal in general, is all that such an investigation should be. We have a good account of all the relevant facts about the topography, the geography, the soils, the rivers, the vegetation, the crops, the animals and the peasants of the district. There is a brief history of the people and a description of village life. Then follows an account of three Mahomedan villages and half a dozen Hindu villages. In discussing the state of agriculture, Prof. Geddes emphasises the insufficiency of land and agricultural equipment and the poverty of human beings and cattle. The picture presented to us of the condition of tenants, peasants and labourers and of the part played by the Zaminder and the Mahajan, is very interesting. In fact, no aspect of life escapes the security of the sociologist, who is anxious to find out why, in a land so richly endowed by nature, human beings have deteriorated to a deplorable state. The estimate framed by the author of the income and expenditure relating to the cultivation of an average bigha of land, may have to be more closely scrutinized if any solid conclusions are to be based on it. But there is no doubt that even this part of the work has been very carefully done. The comments of the author on everything he observes and studies, are shrewd and penetrating, as they are frank and sympathetic. On the whole, the book may be pronounced a good guide for similar studies in India. The copious bibliography at the end of the book shows the width of vision and the thoroughness with which the task of love has been executed.

V. G. K.

THE PROBLEM OF CONTROL, by A. P. L. Gordon, B.A., formerly Hulme Exhibitor of Brasenose College, Oxford. Published by Routledge. Price. Rs. 5.

One of the most disconcerting phenomena of economic organization in recent times, has been the growth of combinations in different shapes and forms under various names such as kartels and trusts. It may appear as if, in the present

age of free competition, one need not bother how manufacturers and traders organize their business, as in the long run an equilibrium will be established and the best interests of all parties will be safeguarded if there is no outside interference. But in reality the position is not so simple, inasmuch as combinations like kartels tend to become despotic monopolists and governments have to intervene for the protection of the public from exploitation. But text-books on Economics show us how monopolies are not by any means an unmixed evil and free competition is not always beneficial. How to secure the advantages of monopolies like trusts and kartels without their evils, is, therefore, a very important problem for legislatures and governments to solve. It is natural that in these circumstances a good deal of discussion and literature should have grown round the whole subject. The treatment of kartels is to-day a live issue before the legislators and statesmen of Germany, and other countries have likewise to determine their policy towards similar combinations within and outside their borders.

Mr. Gordon's book will prove extremely useful in providing material and means for an understanding of the complexities of this troublesome problem. He describes the general method of the kartel system, showing how free competition under modern conditions of production leads to restriction in the shape of kartel agreements of different kinds; and how the independent producer, other industries, and the consumer are affected thereby. Speaking of the post-war formation of a great steel trust in Germany, called the Vereinigte Stahlwerke, the author refers to the advantages the organization has secured to the nation and the industry by means of economies and effective regulation of competitive activities and goes on to remark :—"Nor is it to be stigmatised on the ground of its ability to extort high prices from the consumer; for the consistent policy of Germany in refusing to make combination illegal has left the state with sufficient power to prevent exploitation. Moderate dealing with kartels has made it possible to hope for moderate behaviour on the part of trusts, and has opened the way for possible international agreements of the future." The second part of the book is concerned with legislation, and problems of contract, competition and price are discussed in that connection. The English law regarding combinations is compared with the German law, and the weaknesses of the former are pointed out. Then the relations of free trade and combinations are discussed, and the possibilities of international kartels and an Economic League of Nations are considered as a solution for the difficulties presented by the trust phenomenon. Referring to England, the author says : "A country which by legal, judicial or administrative action sets up the parrot cry of 'monopoly' against all kinds of combination will quickly lose its position in the industrial world." The book closes with the following interesting observations :—"It cannot be too strongly emphasised that the danger lies not in monopoly itself, but in the abuse of monopolistic power; a system of prohibition, therefore, fails to tackle the real problem. Monopoly, more or less developed, has powers for good which infinitely exceed its capacity for evil doing; restrictive legislation must be blamed if,

particularly in this country, the strength of monopolists has often been forced into sterile and obnoxious channels." On the whole, Mr. Gordon's book makes interesting and instructive reading.

V. G. K.

THE FACTS OF INDUSTRY. Case for Publicity. Macmillan and Co. Price Re. 1.

Disputes between capital and labour are the order of the day in all countries at the present moment, and one of the surest means of avoiding the extreme measures of strikes and lockouts, is a free frank discussion of the questions at issue between the parties affected. Unless labour is all class war and "down with capital," where collective bargaining and strong trade unions have been organized, the chances of a peaceful solution of industrial disputes are favourable. But it is not capital and labour who are alone interested in this matter. The community at large has a great stake in the affair, and its attitude is often decisive. But the public finds it extremely difficult to form a correct judgment in the absence of a knowledge of facts about costs, prices and wages. Even the working classes are handicapped in their negotiations with employers. The report before us has, therefore, done a distinct public service by emphasising the vital importance of wide publicity of all relevant facts about the conditions of industry. The committee which has drawn up the report, consisted of well-known representatives of the different interests concerned, and we are glad to find among them the names of Prof. Bowley and Mr. W. T. Layton, who was chairman. The report is based on the assumption that "it is impossible to formulate a wise policy in industrial and economic affairs without first knowing the facts of the case." A good case is made out in the report in favour of the compilation and publication of important facts concerning industries, and the concrete recommendations of the committee are of a practical nature and ought to receive a sympathetic consideration. We, in India, have now sufficient experience of the conflicting claims put forward by capital and labour and would very much welcome a movement asking for publicity. The difficulties in the way, in this country, are much greater than in advanced nations like England and the U.S.A. All the same, modern industrial conditions everywhere demand wide publicity in matters in which public interests are vitally concerned.

V. G. K.

ENGLAND ON THE EVE OF THE INDUSTRIAL REVOLUTION, by L. W. Moffit, Ph.D.
P.S. King, pp. 312. Price Rs. 12-6-0.

The Industrial Revolution is decidedly the greatest formative influence in the history of modern Britain. The changes implied in that revolution and their

social and economic consequences have been carefully studied by scholars like Arnold Toynbee and Paul Muntoux but the condition of England just before the industrial revolution is rather obscure. Those who read the standard histories, even works by Cunningham and Ashley, might have realised that their account of the economic history of England between 1650 and 1760 is meagre and unsatisfactory and this was felt to be a very serious void seeing that period witnessed the preparation for the great changes connected with the Industrial Revolution. Dr Moffit of Winnipeg, has filled this void very creditably, in the book before us.

Dr Moffit has analysed the economic structure of England in the period just before 1760 in its manifold aspects. In the first part he analyses the agricultural technique especially of Northern England and gives also useful details of the form of land, size of farms, enclosures and of the conditions of markets, prices and transport agencies. His analysis of the social structure of the rural community is entertaining as well as instructive.

In Part II he deals with the state of industry and commerce and he analyses their structure with nearly as much thoroughness as shown in Part I. His treatment of the domestic system of industrial organisation is particularly useful inasmuch as he shows how that system worked in the various industries then in existence. The condition of the handicrafts and of the workers engaged in them, the different classes of middlemen and the methods by which they distributed the goods and the nature of the markets and fairs have been brought out with a minuteness of detail and wealth of illustration not found in most other works on the subject. It may be noted in passing that in a good many ways, the conditions detailed by him were analogous to the state of the contemporary textile manufactures in India during the same period.

The sources utilized were the contemporary writings of Daniel Defoe, Arthur Young, the pamphlets, periodicals and newspapers of the time and the mine of information called the Victoria County Histories. One important source which the writer might have consulted with advantage is the collection of papers of the Board of Industry and Trade preserved in the Public Record Office in London. Similarly one would regret that he did not utilize the vast pamphlet literature of the 17th and 18th centuries preserved in Goldsmith's Library of Economic Literature now housed in the London University Library. Perhaps the author was suffering from a plethora of facts, even so he could have had a better opportunity to select the more pertinent facts and the most accurate figures, had he waded through the copious sources just noted.

Further one may perhaps feel after reading the whole book that the relation of the facts dealt with to the changes brought about by the industrial revolution could have been brought out more thoroughly. No doubt he has stressed that the period was one of preparation but that could have been illustrated more pointedly.

To the Indian scholar this book will give many hints and suggestions for a

similar work on the economic history of India before the Railway Age. I hope some competent scholar will take it up.

P. J. T.

ECONOMICS OF FARM RELIEF, by Edwin R. A. Seligman. Published by Columbia University Press, 1929. Pp. xv, 303.

The book under review is an explanation of the present weak position of the American farmer, and an effort to suggest remedies for improving the condition of the farmer. Prof. Seligman finds that in America the returns of agricultural enterprise have in almost every line, been meagre and inadequate for the last few years. The position is made worse when we take into consideration the facts that during the war the agriculturists earned large profits, and as a result extended their operations through credit on the basis of those large profits. Now that the prices of agricultural produce have gone down, the farmers find it difficult to meet their obligations, and some of them are literally being crushed out of the industry by the load of heavy mortgage debts on their lands.

To remedy this the Professor suggests that the lot of the farmer can be ameliorated by (1) reducing transportation rates, (2) by hastening the transition of state taxation from a property to an income basis, and (3) by so arranging the tariff that a higher price may be secured for the products sold by the farmer. To secure the aims, the Professor suggests the creation of a Farm Board which would continuously look after the interests of the American agriculturists. The part of the book which deals with the functions of the Farm Board is of peculiar interest to us in India where, as a result of the recommendations of the Royal Commission on Agriculture, Imperial and Provincial Councils of Agricultural Research are being instituted. The Government of India and the various Provincial Governments and all others who may be interested in the agricultural development of the country would do well to look over this part of the book, as it is sure to give them some idea of what to do and how to do it, if we mean real progress in Indian Agriculture.

Apart from the importance of the book to the students of Rural Economics in India, one chapter is of peculiar interest to students of Economic Theory. The Chapter is entitled "The Economic Characteristics of Agriculture," and herein one finds an elaborate discussion of the influences of changes in the quality offered for sale of various kinds of commodities on the resulting price. The whole chapter is a masterly exposition of the relations of prices to changes in quantity and is well supported by statistical evidence.

Professor Seligman is one of the leaders of Economic thought and it is hardly possible to do justice to his written word within the limits of a review article. The only thing we can do is to suggest that all earnest students of Rural Economics and Economic Theory should make it a point to read this book.

B. G. B.

A SOCIAL HISTORY OF ENGLAND, by Frederick Bradshaw, M.A. (Oxon.), D.Sc., London. Lecturer in Economic History at Armstrong College, Newcastle-upon-Tyne.

The book under review is written with the limited purpose of supplying an easy economic and social supplement to the usual political and constitutional history studied in High Schools and Colleges. This purpose the book is well calculated to serve. To students of Economic History proper the book is likely to be of use only as an 'introduction.' Mr. Bradshaw has, however, based his treatment on the works of standard authors, and a perusal of his book is well worth the trouble not only of the student of history but also of the general reader. At present there is a general stir in the social and economic life of our country and those who have not the opportunity of studying the record of economic progress of other advanced nations are likely to want the proper insight and the correct perspective for judging contemporary experiences. A sketch of British social and economic history like that of Mr. Bradshaw should find a place on the shelf of every educated citizen who desires to take an intelligent and critical interest in the movements of his times.

D. G. K.

INDIGENOUS INDIAN BANKING, by M. M. S. Gubbay, D.B. Taraporevala Sons & Co., Bombay. Rs. 1-12.

This book is a reprint of a paper read at the Royal Society of Arts, London, by M. M. S. Gubbay. Mr. Gubbay in various important capacities as Collector of Customs at Bombay, Controller of Currency, and Financial Secretary to the Government of India has had unusual facilities of studying at close quarters the subject of Indigenous Indian Banking which to many people is nothing but a usurious system of money-lending. The paper has thus the rare merit of having been written with inside knowledge and in spite of the intricate nature of the subject the exposition is both simple and brief—perhaps too brief.

Mr. Gubbay starts by dividing Indian banking into two main groups, *viz.*, (i) banks working on jointstock principles or what he calls "organised banks" and (ii) private Indian bankers, *i.e.*, the *shroffs*, *chetties*, *mahajans*, etc. After a brilliant analysis of the causes responsible for the defects and limitations of organised banking the author rightly points out that "the part played by organised banking in the financial life of the people of India is inconsiderable when contrasted with that which is played by the private Indian banker." Then follows a close but clear examination of the operations of the various classes of indigenous bankers including the endorsing *shroff* who through the *hundis* provides the only link that, at present, exists between the Indian bankers and the organised banks. This link, however, as Mr. Gubbay rightly points out, is

neither regular nor effective, because a banker usually invests his own funds in these *hundis* and rediscounts them with a joint-stock bank only in times of temporary stringency or pressure, when his own resources are exhausted. There is thus no real co-ordination or *liaison* between the indigenous bankers and organised banking. The most important problem is how to bring this about and if Mr. Gubbay's paper does not actually solve it, it at least brings out the attendant difficulties and points the way.

Along with Mr. Gubbay's paper, the publishers have done well in giving an exhaustive discussion thereon which contains the views of such leading authorities as Sir Henry Strakosch on "Central Banking" and Sir Selwyn Fremantle on "Co-operation."

The book will be found to be very useful by all students of Indian banking, particularly the members of the various Banking Enquiry Committees recently set up by the Government, and some of the states.

H. C. J.

MEMORANDUM ON THE NEED FOR REVISION OF THE INDIAN CUSTOMS TARIFF, by C. N. Vakil, University Professor of Economics, Bombay. The Federation of Indian Chambers of Commerce, Bombay. P. 24.

This short pamphlet has been compiled for the use of the Committee of the Federation of Indian Chambers of Commerce. Part I gives a few well-known facts about the Indian Customs Revenue and points out the need for a scientific and comprehensive inquiry into the many important issues involved. Part II contains a very brief and necessarily incomplete discussion of the theories underlying tariffs, mainly following Dr. Gregory's method of exposition. One refuses to believe that our businessmen are ignorant even of such elementary notions about tariffs.

H. SINHA.

REPORT OF THE ELEVENTH SESSION OF THE BIHAR AND ORISSA CO-OPERATIVE CONGRESS, 1929.

The Report gives the Presidential Address of the Hon'ble V. Ramdas Pantulu. It is an admirable address given by one who is in close touch with the general trend of co-operative life in India and with its actual working in the Presidency of Madras. Mr. Pantulu opens that "Excessive decentralisation of administration and financial policies is a real source of weakness in our organizations, and it accounts for many of our troubles. Account of co-ordination between the Provincial Banks, Central Banks and primary credit societies cannot but lead

to confusion of aims and clash of interests which may ultimately result in financial chaos." To safeguard against this he suggests "the development and enforcement of a centralised policy" and then adds "But such centralisation must not offend against the democratic ideals of the movement." This is by no means an easy task, and so long as the membership of the primary societies, from a qualitative point of view, continues to be what it is, at least in the United Provinces, the unity of financial policy as between the central banks and the primary society is well-nigh impossible to bring about.

B. G. B.

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CONFERENCE PAPERS

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Page 453—line 3, add *as* after ‘ Finance ’

„ 455— „ 33, insert *or* between ‘ another ’ and ‘ for ’

„ 456— „ 15, insert *it* after ‘ give ’

„ „ — „ (ii) correct *where* instead of ‘ when ’

„ 457— „ 33, last word should be ‘ *or* ’ in place of ‘ of ’

„ 458— „ 26, insert *as* between ‘ statesman ’ and ‘ to ’

DEVELOPMENT OF ECONOMIC THOUGHT

BY

H. R. SCOTT,

“ Pinchill,” Kodaikanal, S. India.

The word Economics meaning the science of the production and distribution of material wealth, has usurped the place of Political Economy in our modern language but is a misleading word to the public who connect economics with economy which connotes parsimony or the doing-without. Economy though necessary in the matter of personal consumption without waste of time or material, has a blighting effect on progress if carried on to the detriment of efficiency.

Economics as I understand it, refers to the equilibrium of current production with daily consumption, the former is an organized business, the latter merely a natural consummation prompted by need and human desire to fulfil that need.

It is now fully recognised that the power of production has far outstripped the power of consumption not because human needs or desires are limited but because they are restricted to monetary demand, that is to a demand in terms of the money medium which offers some monetary gain to producers. For without such inducement a large section of the community will be condemned to idleness.

The aggregate purchasing power of money over commodities and services under our existing system of currency plus credit, based upon the call option of gold as an international standard of money and price, can only be increased by means of lower prices.

But these lower prices in their turn act as a deterrent to production and enterprise for money gains.

Another factor in the problem of distribution of wares to those who need them, is the tendency even in the joint stock capitalist system, for the spending power of money to become concentrated in the hands of the few to the detriment of the many, also to the secondary fact that individual spending power on personal comfort and enjoyment is strictly limited.

The result appears in the diversion of spending power into lending power for interest or usury with the alternative of expenditure on capital projects or enterprise seeking money dividends and financial dominance over others.

Most economists today are agreed that retail prices should be stabilized in order to reduce so far as possible the risks of manufacture and trading together with the smallest variation between nominal money wages and real wages, since such variations are a fruitful cause of labour dissatisfactions. The orthodox doctrines of the last century were based upon barter principles, i.e., the mutual benefit of both sides to all trading operations, the exchange of goods for goods or services for services are both combined and the balance of trade was the determinate of rates of foreign exchange as expressed in terms of currency units.

Gold was accepted as the incarnation of all human values in the last resort and its adoption as a standard, essential to prevent any dishonesty of currency manipulation on the part of national Governments.

Scarcity of the medium was regarded as an attribute of value and the market rate of interest justified by the law of supply of loanable funds in relation to the inevitable demand for them.

These doctrines die hard, they are obviously correct when confined to barter principles but they are grossly misleading when the results are expressed in terms of an unrelated entity such as the money we use today. Money prices are now recognised as fractional of the total circulation extant they are not arithmetical,

i.e., composed of units of unlimited scope such as numbers. They are governed by the totality of the issue and by facilities of transfer which dispense with the actual movement or handling of currency.

Every attempt has been made to obviate the use of money while retaining the option of it in the process of payment and receipt, thus permitting it so far as possible to become through speed of circulation, an ideal and scientific measure of all material values.

The command of money by means of a credit balance at some bank has superseded the possession of it and payment of money by means of a debit entry in current account supported by the payer's signature, has superseded the counting out of coins or notes.

Government promises to pay coin on demand has largely superseded the minting and issue of metal discs which need no reserves beyond the substance of which they are composed.

Bank cash-credits have largely superseded the method of money loans or advances against marketable collateral and the discounting of bills of exchange and hundis payable both on demand or subject to fixed time usance has been discouraged by stamp duties and by bankers in the absence of an open rediscount market.

Paper money supported upon metallic reserves obtainable on demand by holders thereof but subject to some minimum weight, has been accepted as a standard, a store and a measure of value also as legal tender and therefore a medium of exchange within the country of issue but in point of fact in daily practice it is none of these things from a scientific point of view.

As a standard, the purchasing power of gold in terms of goods is variable; as a store it is unreliable owing to changes in the general price level and in rates of interest, as a measure it is equally uncertain over periods of time, partly by reason of manipulation by issuing authorities through the creation of *ad hoc* reserves

and other devices, and partly because population tends to increase and crops to fluctuate in volume, irrespective of its total circulation.

Neither is it a true medium of exchange of goods for goods for although goods may be sold for money and this money will purchase other goods, there is no direct exchange, all prices received or paid are determined more by the volume and speed of circulation of the medium than by the relationship in barter between the two kinds of goods.

It may be more correctly described as the medium of purchase carrying the double option of conversion into goods or gold. The second option although now in abeyance, is theoretically necessary to maintain the confidence of the public who as a matter of fact do not require gold and would be embarrassed by the possession of it.

So long as prices remain steady their confidence in their money holdings will not be disturbed.

The specific theory which I wish to advance is that the issue and withdrawal of paper money must be related to the things wanted and consumed by the public and not to any metal whose price may be fixed in terms of currency, since the purchase of gold from the reserves then destroys an arbitrary sum in money, and conversely the sale of gold to the State then creates an arbitrary issue of new money.

The value of gold in terms of useful things is determined by its scarcity rather than by its utility but as a reserve it can be transferred to other countries which have adopted the provisions of the Gold Exchange Standard. Gold coins no longer circulate nor are sovereigns legal tender in India today.

The true relation between currency and wares available for distribution, can best be secured by means of internal bills of commerce drawn by producers against actual sales and deliveries to merchants for value, these are discountable by Co-operative Societies and readily negotiable by all commercial banks of

deposit who can endorse and pass them on for cash to the Imperial Bank of India where they can be rediscounted with the Currency Office at some reliable rate without limitation beyond the guarantee of the banks to repay this money on or before due dates, for destruction of this temporary medium of purchase. The revenue earned by the State from such re-discounting operations will go far to obviate the necessity of taxation or of borrowing from the public.

The call option of gold to all holders of the currency above 1,065 tolas worth can be retained as today but the chances are that it will not be demanded except for export purposes. The legal obligation on the State to acquire gold at any fixed price in new currency can be withdrawn since such an obligation encourages the hoarding of the metal.

But the State should reserve to itself the power to acquire gold at or above the world market price if needed by its subjects at any time. I seriously maintain that the need will never arise.

Rates of exchange today are determined by the balance of payments more than by any outstanding balance of trade in goods and these payments consist for the most part of interest due on foreign debt.

The present-day flow of importations of gold into India in final settlement of the excess of her exports over her imports, are forced upon her by reason of the relatively small material comforts of her wealthier classes. If this gold could not command the issue of new rupees, it is probable that it would be diverted into the purchase of sterling investments including India sterling debt as a source of income rather than an idle asset.

The main principle involved in such an evolution in the constitution of our money is the automatic economic adjustment day by day, by means of the volume instead of by means of prices which are in essence fractional of such volume. The volume of circulation will grow with the natural growth of trade and will shrink with its contraction leaving prices largely unaffected.

The employment of surplus money by lending it for interest against marketable collateral less a margin, will be superseded by its use in discounting trade and bank acceptances at lower rates perhaps but at less risk and in far larger amounts.

Currency reserves in metal can be gradually sold for current money and these proceeds destroyed as redundant. New money will need no reserves beyond the transactions in necessary goods it serves to reflect.

SOME RECENT DEVELOPMENTS IN THE MATHEMATICAL THEORY OF TAXATION DUE TO EDGEWORTH

BY

M. R. DORESAMIENGOR,
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SUMMARY

It is sufficient, without elaborate attempts at definition and classification, if we classify taxes into 'direct' and 'indirect.' Now mathematical theorems seem to be more familiarly known in 'indirect' (or commodity) 'taxation.' Some of the theorems are stated in the Paper. No one doubts their utilitarian aspect. They are also discernible by 'pure economic reasoning.' But commodities being generally correlated as regards demand and production, for a study of the effects of taxes upon them, the plane of 'pure economic reasoning' will be eagerly left for the mathematical. It is just here that Edgeworth's writings are felt to be original and most welcome. His mathematical method for the case of two commodities one of which is taxed, needs to be restated, as here and there, it is feared there may exist some obscurities. The striking conclusions reached as regards the prices of the two articles must surely stimulate in the line, additional work by the mathematical economist.

Now the other aspect of 'internal' taxation is taxation of personal incomes (or wealth). And whatever the utility—law for incomes (or money), Edgeworth's doctrine of 'minimum sacrifice'—for this, a mathematical exposition has been given in the Paper—always takes us to the conclusion that the tax rate must be *progressive on a steep scale*. But the 'equal sacrifice' principle if associated with law of utility for incomes, due to Cramer, for instance, leads to the conclusion the tax-rate must be regressive! Thus, at least in its mathematical aspect, Edgeworth's principle must be considered the best, for universal application. This can be demonstrated by a comparative tabular representation. To conform to his doctrine, Edgeworth proposes a tax formula—for this, an interesting mathematical construction is

shown—which has been closely kept in view, by two tax systems in recent times.

Inferences must be drawn now. Thus extension of Edgeworth's method to three or more correlated commodities could not be totally bereft of its practical importance. It is desirable also, to be nearer actual economic facts, that no independence between the cost of production and demand functions should be assumed, in our equations. Again, as Mr. Chapman's and other writings tend to show, either progressive taxation may be justified more on the relative urgency of human wants than any 'sacrifice of utility theory,' or if the Edgeworthian doctrine is to be continued more firmly than before, a discovery of a Law of Utility of Incomes, expressing our experiences evenly for all ranges of incomes is desirable. This should not so much be done on *a priori* grounds but, on the lines of experimental measurement, in the plane of contact between Economics, Physics and Psychology.

Nevertheless a just recognition of the Mathematical method in 'Taxation' is confidently expected to lead to loftier heights.

Any attempt to elaborate the definition of a tax would according to Edgeworth be "an interminable inquiry," and we are also told by Dr. Dalton that "a search for classification is more instructive than the classification when found."¹ Hence it is not proposed to introduce the subject-matter of this article on such fascinating yet slippery lines as attempts at definition and classification of taxes. In a way, Cournot, the oft-neglected Mathematical economist, has prepared the ground for us. In his 'Theory of Wealth' we read "The forms of taxation may vary widely. At the time when public affairs were conducted in secret it was considered a great art to be able so to diversify forms as, it was thought, to increase the supplies of the treasury without making its exactions felt. Later according to a half-understood theory, it was considered desirable to make taxation as uniform as possible, but the financial legislation which stands today in France is equally removed from both these extremes and recog-

¹ Dalton, "Public Finance," p. 127

nises forms of taxation, essentially distinct though quite limited in number, which from practical rather than theoretical considerations, it classes in two main categories of direct and indirect taxes."² From a mathematical standpoint, this involves a study of the effect of 'indirect taxes' on the prices of commodities and of 'direct taxes' on the utility of incomes, or wealth, of the taxpayers. No other viewpoint perhaps, so readily suggests itself in our analysis as the foregoing.

Now notable contributions have appeared more familiarly in the field of 'commodity taxation.' As early as 1838, Cournot discussed the case of taxation of monopolies and arrived at such conclusions as these: "The less borne by consumers will remain without any compensation and there is no doubt that the doctrine of Quesney's school is perfectly applicable to the products of monopoly, that it is better to levy a direct tax on the net income of the monopolist than to lay a specific tax on the commodity."³ Again, the subject comes to the forefront in the discussion of the 'shifting and incidence of taxation' by writers of Public Finance. Their scheme has been to assume one of the three laws of costs for the commodity under consideration and reach conclusions as to whether the price increases or decreases as a result of the levy of a specific tax, thereby determining the effect on production in general. In another measure Dr. Marshall's concept of 'consumers' surplus' and 'elasticity of demand' (or supply) has given a new line to the mathematics of 'indirect' taxation. This study would not in general be one of prices of taxed articles but that in relation to consumers' surplus and incidentally of producers' gains. Enunciation of theorems of high practical importance readily follows and we have, for instance, the results—(1) the loss in consumers' surplus (or rent) is more or less according as the

² Cournot, "Researches into the Mathematical Principles of the Theory of Wealth," p. 67.

³ Cournot, "Researches into the Mathematical Principles of the Theory of Wealth," p. .

elasticity of demand (or supply) is smaller, or greater, other things remaining the same; or again, (2) maximum advantage accrues to the community when the Government taxes commodities obeying the law of diminishing returns, and devotes part of the proceeds in offering bounties to industries which obey the law of increasing returns.⁴ No one for a moment, doubts the utilitarian aspect of these principles that decide how far a taxing authority shall go, and how far he shall not. If e , the elasticity of demand were equal to zero—this would be the case when we considered an article like common salt—the injury to the consumers is enormous. Or from the second theorem stated above is it any credit to a wise statesmanship, if in agricultural countries, the system of bounties is so distributed as to affect mostly agricultural industries? One never maintains, however, that these truths are not discernible by ordinary reasoning. But whether the discovery would be as compact as that with the mathematical weapon is a subject for actual investigation.

This preamble is considered necessary, because it reveals the extent of development of the mathematical theorems in taxation of a commodity (supposed to be isolated). Indeed the field is distinctly the mathematical economist's when we consider the regime of monopoly. The conclusion that the output, for instance, is in general reduced to less than half what it is in a regime of competition serves as an instance. Symbolic treatment readily yields this result where "pure economic reasoning" cannot reasonably be expected to rise completely to the occasion. But when once we take cognisance of this fact that in actual economic life, no one commodity is independent of others, as regards production and demand, the plane of "pure economic reasoning" is eagerly left for the mathematical. And it is precisely in this case of the so-called 'correlated' commodities that Edgeworth's writings are original contributions, and they no doubt

⁴ Marshall, "Principles of Economics," p. 469.

form the most notable of additions to economic thought in recent times.

The following symbolic treatment of one of his taxation problems, would it is hoped not only act as a resume but also clear some of the obscurities that might exist here and there in his "collected papers."

If $V(x, y)$ denote the money-measure of the satisfaction derived from the acquisition of x units of one commodity and y of another and $f(x, y)$ denote the money-measure of the sacrifices involved in the production of these units, the fact that the articles are correlated as regards production and demand is indicated by the existence of $\frac{\sigma^2 f}{\sigma x \sigma y}$ and $\frac{\sigma^2 f}{\sigma x \sigma y}$. Now $\frac{\sigma}{\sigma x} \left(-\frac{\sigma f}{\sigma y} \right)$ that is, $-\frac{\sigma^2 f}{\sigma x \sigma y}$ means the rate of change of the marginal cost-price of y with respect to x . If this is positive, it means an increase in the production of one commodity increases the cost of production of the other. In Edgeworth's words increase of one article renders the production of the other more difficult—this being a case of 'rival production.' If $\frac{\sigma^2 f}{\sigma x \sigma y}$ is negative, we have a case of 'complementary production' where increase in the production of one commodity facilitated the production of the other. Likewise $\frac{\sigma^2 f}{\sigma x \sigma y}$, being positive, denotes that increase in the output of one commodity increases the marginal demand price of the other. Now, increase in the output of the first commodity means a fall in its demand price. Here we have a case of fall in the price of one commodity accompanied by a rise in the price of the other. This Edgeworth calls 'complementary' demand. $-\frac{\sigma^2 f}{\sigma x \sigma y}$, being positive denotes that a fall in the demand price of one article is accompanied by a fall in the other. This is 'rival' demand.

In a regime of competition, with equilibrium between demand and supply consumer's surplus and producer's gain must appear as maximised.

Now, consumer's surplus, say $\psi(x, y) = F(x, y) - p_1x - p_2y$ and producer's gain say $\phi(x, y) = p_1x + p_2y - f(x, y)$ where p_1 and p_2 are the prices of the two articles supposed invariable. Applying the mathematical conditions for maximum of a function $\psi(x, y) -$

$$(1) \quad \frac{\sigma\psi}{\sigma x} = \frac{\sigma\psi}{\sigma y} = 0.$$

$$(2) \quad \frac{\sigma^2\psi}{\sigma x^2}, \frac{\sigma^2\psi}{\sigma y^2} \text{ are both negative.}$$

$$(3) \quad \left(\frac{\sigma^2\psi}{\sigma x \sigma y} \right)^2 < \frac{\sigma^2\psi}{\sigma x^2} \cdot \frac{\sigma^2\psi}{\sigma y^2},$$

to the expressions for both consumer's surplus and producer's gain, we get,

$$(1) \quad \frac{\sigma F}{\sigma x} - p_1 = \frac{\sigma F}{\sigma y} - p_2 = 0 = p_1 - \frac{\sigma f}{\sigma x} = p_2 - \frac{\sigma f}{\sigma y}.$$

$$(2) \quad \frac{\sigma^2 F}{\sigma x^2} \text{ and } \frac{\sigma^2 F}{\sigma y^2} \text{ are both negative, say } -A \text{ and } -B.$$

$\frac{\sigma^2 f}{\sigma x^2}$ and $\frac{\sigma^2 f}{\sigma y^2}$ are both positive, say $+a$ and $+b$. (This shows that the investigation is restricted to commodities obeying the law of increasing costs.)

$$(3) \quad \left(\frac{\sigma^2 F}{\sigma x \sigma y} \right)^2, \text{ say } \mu^2 < A \times B \text{ and } \left(\frac{\sigma^2 f}{\sigma x \sigma y} \right)^2 \text{ say } \gamma^2 < a \times b.$$

The effects of a small tax τ per unit on one of the articles x of which are being produced, may be taken as disturbing the equilibrium slightly, so that x, y, p_1, p_2 become $x + \Delta x, y + \Delta y, p_1 + \Delta p_1, p_2 + \Delta p_2$ respectively.

Consumer's surplus now is $\psi(x + \Delta x, y + \Delta y)$, the conditions for maximum of which give (on expanding by Taylor's theorem, infinitesimals of order higher than the first being neglected.)

$$\frac{\sigma F}{\sigma x} - A \cdot \Delta x + \mu \cdot \Delta y = p_1 + \Delta p_1.$$

$$\frac{\sigma F}{\sigma y} + \mu \cdot \Delta x - B \cdot \Delta y = p_2 + \Delta p_2.$$

The expression for producer's gain now is $\phi(x + \Delta x, y + \Delta y) - \tau(x + \Delta x)$, the conditions for maximum being

$$\frac{\sigma f}{\sigma x} + a \cdot \Delta x + \gamma \Delta y + \tau = p_1 + \Delta p_1.$$

$$\frac{\sigma f}{\sigma y} + \gamma \Delta x + b \cdot \Delta y = p_2 + \Delta p_2.$$

But x, y , are values which make consumer's surplus and producer's gain maxima in the 'untaxed' condition so

$$p_1 = \frac{\sigma I'}{\sigma x} = -\frac{\sigma f}{\sigma x}, \quad p_2 = \frac{\sigma I'}{\sigma y} = -\frac{\sigma f}{\sigma y}.$$

$$\text{Hence } -A \cdot \Delta x + \mu \cdot \Delta y = \Delta p_1 = a \cdot \Delta x + \gamma \cdot \Delta y + \tau.$$

$$\mu \cdot \Delta x - B \cdot \Delta y = \Delta p_2 = \gamma \cdot \Delta x + b \cdot \Delta y.$$

It follows, from these equations

$$\frac{D^2}{\tau} \cdot \Delta p_1 = A(B+b) - \mu(\mu - \gamma).$$

$$\frac{D^2}{\tau} \cdot \Delta p_2 = -\mu(B+b) + B(\mu - \gamma)$$

where D^2 stands for the positive expression

$$(\Lambda + a)(B+b) - (\mu - \gamma)^2.$$

It is now open to us to discuss whether Δp_1 and Δp_2 are positive or not considering the signs of μ and γ .

In other words, whether the prices of articles go up or down as a result of taxation is to be determined by the consideration whether the articles are "complementary" or "rival" in the conditions of their demand or supply or both. Edgeworth, after working out these equations concludes that it is just possible for prices of both to go down—consumers would be advantaged as a whole—when the production and the demand for both articles are rival, and that when production and demand are 'complementary' this cannot happen. The first conclusion is very striking. Supposing the tax were a bounty, we would have the result that as a consequence of granting a bounty to one of the two correlated goods the prices of both went up! Certainly the consumers could curse the benevolence of the taxing authorities. Other conclusions⁵ would be reached if we assumed independence

⁵ Edgeworth, "Papers Relating to Political Economy," Vol. II A., p. 72, Chapter on "Pure Theory of Taxation."

Conclusions marked 5 and 6 in this article are different from his. The reader can make a close investigation.

as regards 'demand' and 'supply.' The tabular statement beneath reproduces those effects:

NATURE OF RELATION BETWEEN ARTICLES		EFFECTS ON ONE OF A SPECIFIC	
<i>Production.</i>	<i>Demand.</i>	<i>Tax.</i>	<i>Bounty.</i>
(1) 'Rival' ...	'Rival' ...	Both may be lowered.	Both may rise.
(2) 'Complementary'	'Complementary'	Both cannot decrease.	Both cannot rise ; both lowered.
(3) $\gamma=0$...	'Rival' ...	Both rise ...	Bountied lowered.
(4) $\gamma=0$...	'Complementary'	Taxed rises, un-taxed lowered.	The other rises.
(5) 'Rival' ...	$\mu=0$...	Taxed rises, un-taxed lowered.	do.
(6) 'Complementary'	$\mu=0$...	Both rise ...	Both lowered.

Perhaps an explanation is needed for bringing in the last column. As given out by the mathematical conditions, the investigation is solely for two commodities obeying the law of increasing costs, and as such, the question of bounty need not be introduced at all. Still for the sake of the mathematical completeness, the results are worth stating and they nevertheless point out the effects of possible indiscreet statesmanship. But there the theorems stand, perhaps infusing additional zeal into the mathematical economist to discover even more paradoxical conclusions (which though paradoxical are in the realm of actual realisation). And this would not be out of keeping with Edgeworth's spirit either. Observes Mr. Keynes in his obituary notice⁶ "To judge from his published works Edgeworth reached Economics as Marshall had done before him through Mathematics and Ethics. But here the resemblance ceases. Marshall's interest was intellectual and moral; Edgeworth's intellectual and aesthetic. Edgeworth wished to establish theorems of intellectual and aesthetic interest; Marshall to establish maxims of practical and moral importance."

⁶ Economic Journal, 1926, 'Obituary Notice' by J. M. Keynes.

Considerations of available time and space have determined that the writer should confine himself only to 'internal' taxation. Now, if we pass on to the other aspect—the taxation of incomes—we will perhaps be no less enthusiastic about Edgeworth and the mathematical method. The problem may be stated thus: It is agreed on all hands, that in modern democracies, there should be a progressive tax-rate in any financial scheme. Various theories have been evolved to support this view. The most usual, perhaps, is the view, that democracy—it may be even jealousy that directs its action—wants to reduce the inequalities in the distribution of wealth.⁷ The 'utilitarian' school, however, would try to be more precise and justify the tax system on the basis of the known or deducible laws of utility of income. It is perfectly natural to expect citizens of a state to undergo the same amount of sacrifice, or sacrifice proportional to the total utility of income. But, whatever the nature of the sacrifice expected, the result should be that the rate of increment of the tax, η , should be positive, i.e., that $\frac{d\eta}{dx}$ should be positive under any utility law. This in brief is the mathematical problem. It is in this connection that Edgeworth claims superiority for his principle of 'minimum sacrifice,'⁸ namely, that the total tax-burden on a taxed community should be a minimum. Symbolically, if $x_1, x_2, x_3, \dots, x_n$ are the incomes in a state arranged (say) according to ascending order of magnitude, and if $\eta_1, \eta_2, \eta_3, \dots, \eta_n$, are the tax rates, the amounts contributed by the various income-holders are $\eta_1 x_1, \eta_2 x_2, \eta_3 x_3, \dots, \eta_n x_n$. Assuming now that the utility law of incomes is expressed by $u=f(x)$, and that the tax contributions are small, the sacrifices involved are $\eta \cdot x \cdot \frac{du}{dx}$, etc. The total sacrifice is thus $\eta_1 x_1 \frac{du}{dx_1} + \eta_2 x_2 \frac{du}{dx_2} + \eta_3 x_3 \frac{du}{dx_3} + \dots + \eta_n x_n \frac{du}{dx_n}$.

⁷ Seligman, "Essays on Taxation."

⁸ Edgeworth, "Papers Relating to Political Economy," Vol. II A, p. 240.

As the x 's are positive, and as they are also invariable, for the above total to be a minimum, it is necessary that the various coefficients of x should be equal. Accordingly $\eta_1 \frac{du}{dx_1} = \eta_2 \frac{du}{dx_2} = \eta_3 \frac{du}{dx_3} = \dots = \eta_n \frac{du}{dx_n} = a \text{ constant } k$.

This enables us to generalise under any utility-law, and the following table shows the deductions on the bases of the three 'sacrifice' theories:

LAW OF UTILITY	NATURE OF η ON BASIS OF SACRIFICE BEING		
	Equal	Proportional	Minimum
Cramer's form $U = \frac{1}{H} \sqrt[n]{x}$	$\eta = 2K/H \sqrt[n]{x}$; Regressive tax-rate.	$\eta = 2K$; Proportional tax-rate.	$\eta = \frac{2K}{H} \sqrt[n]{x}$; Progressive tax-rate
Bernoullian form $U = C \log x$	$\eta = K/C$; Proportional tax-rate.	$\eta = K \log x$; Progressive tax-rate.	$\eta = \frac{K}{C} x$; Still more progressive tax-rate.
Edgeworth's form $U_m = A e^{-x^2} = \text{marginal utility.}$	$\eta = \frac{K}{Ax} e^{-x^2}$; Progressive tax-rate.	$\eta = \frac{K}{Ax} \int_e^{-x^2} e^{-x^2} - x^2$; Still more progressive tax-rate.	$\eta = \frac{K}{A} e^{-x^2}$; Very much more progressive tax-rate.

Thus whatever be the utility law, the principle of minimum sacrifice leads to a progressive tax-rate on a steep scale, while the other two principles do not so completely satisfy the needs of democracy. Indeed when the utility law is of the form, stated above as due to Cramer, proportional to the square root of the income, the principle of equal sacrifice totally fails in that, if adopted, it leads to make the tax system regressive! But the principle of minimum sacrifice stands above the clouds in its universality of application, and Edgeworth says that it "proclaims in trumpet tones that the rate of taxation ought to be progressive except so far as this distributional presumption is cut into by

the proportional and other utilitarian considerations.”⁹ Also, “whatever the reasons for lenity to millionaires in the past,” the doctrine of minimum sacrifice satisfies full fiscal justice. With this in view, Edgeworth discusses the tax formulæ of Cassel, White and Steggall, and pointing out their limitations, proposes¹⁰ a formula of his own of wonderful significance and appropriateness. This may be constructed as follows. If η is the tax-rate, as usual, for an income x , say which is also the ‘free income,’ and T , the total amount of tax collected for that income, $\eta = \frac{T}{x}$, the following conditions seem obviously to be necessary: (1) $\frac{T}{x} < 1$; (2) $\frac{d\eta}{dx} > 0$, and (3) $\frac{d\eta}{dx} = k/x^p$, k and p being constants. With these considerations, the integration of the equation with the value 2 for p , yields Cassel’s form, and with the value 1 for p , yields White-Steggall’s form. And now the one is too dull, and the other too sharp, and to provide a happy medium in graduation, Edgeworth proposes a value of p lying between unity and two, i.e., $p = 2 - \beta$ where $\beta < 1$. The integration now yields $\eta = C - ax^{\beta-1}$ in which the constant C may be determined from the consideration that the maximum value of the tax-rate, η , is unity. This finally leads to $\eta = 1 - ax^{\beta-1}$ or its more useful form, $\log(x - T) = \log a + \beta \log x$. For practical purposes, the constants a and β in this formula must be so adjusted as to make $ax^{\beta-1}$ less than unity. Otherwise η becomes negative, and the ‘tax’ becomes a ‘bounty’! This, as recognised by Edgeworth himself, is an unfortunate limitation of his otherwise very powerful formula.

It is noteworthy that the formula stated above due to Edgeworth, has been given its deserved prominence in recent years. Thus taking the new scheme of income-tax rates proposed by the Indian Taxation Inquiry Committee, it has been demon-

⁹ Edgeworth, “Papers Relating to Political Economy,” Vol. II A, p. 240.

¹⁰ Edgeworth, “Papers Relating to Political Economy,” Vol. II A, p. 249.

strated how well that tax-rate conforms to Edgeworth's formula. Again the Colwyn Committee Report which is, in the main, a vindication of the British Tax System, gives instructive figures relating to the taxes paid by the 'single' persons of stated incomes, which are all 'investment' incomes. Plotting $\log (x-T)$ against $\log (x)$, we can show the points on the graph lie sensibly on a straight line.¹²

So far, the attempt has been merely to present in simpler methods the mathematical structure as determined in the fields of 'commodity' and 'personal' taxation. We can now briefly consider what further work awaits an enthusiast in these paths. In the first place, instead of two commodities, we can have three or a multitude of correlated commodities, and we have to develop our theorems on taxation in regard to $f(x, y, z)$, $F(x, y, z)$, . . . etc., which in the Edgeworthian sense indicate the money measures of satisfaction, etc., and also in regard to the signs and values of the differential coefficients $\frac{\sigma^2 F}{\sigma x^2}$, $\frac{\sigma^2 F}{\sigma y^2}$, $\frac{\sigma^2 F}{\sigma z^2}$, $\frac{\sigma^2 f}{\sigma x^2}$, $\frac{\sigma^2 f}{\sigma y^2}$, $\frac{\sigma^2 f}{\sigma z^2}$, $\frac{\sigma^2 F}{\sigma x \sigma y}$, $\frac{\sigma^2 F}{\sigma y \sigma z}$, $\frac{\sigma^2 F}{\sigma z \sigma x}$, $\frac{\sigma^2 f}{\sigma x \sigma y}$, etc. We can suppose any (or some few) of three (or many) articles to be taxed, and is it not highly probable that when we reason down to the signs and magnitudes of these partial differential coefficients, assuming either a regime of monopoly or competition to prevail, we reach theorems of great significance on many commodities in the same Edgeworthian manner? Then sceptics will perhaps say that our work will be in keeping with that of the man, who even as a boy, used to sit in a heron's nest and read Homer to himself and "dwelt there not too much concerned with the Earth."¹³ But the student in such work must be optimistic in spite of this.

¹¹ K. B. Madhava, 'The Half-Yearly Journal' (Mysore University), Vol. I, Article on "Official Statistics."

¹² Report of the Committee on National Debt and Taxation, p. 127.

¹³ Economic Journal, 1926, "Obituary Notice," by Keynes.

To be clearer, suppose the correlated commodities to be, say, the three classes of railway accommodation and we could show that the taxation of any one class tended to cheapen the rates of the other two, or *vice versa*, what a practical though astonishing deduction would that be? but that problem is just referred to in passing. Already work of an advanced mathematical character has appeared in 'commodity' taxation. Mr. Ramsay's contribution to the theory of taxation appearing in "Economic Journal," Vol. (1927) is a very happy augury. A remarkable feature of this article is that it assumes no independence between the demand and the cost of production functions, but considers merely a net utility which is a function of x, y, z and so on. In this sense, it is nearer economic facts than that given in the preceding mathematical treatment. Again, an article by Mr. Chapman on the "Utility of Incomes and Progressive Taxation"¹⁴ throws fresh light upon the usual methods of justifying progressive taxation under any of the three well-known principles of sacrifice and under any of the known assumptions in regard to utility. According to Mr. Chapman, it is too erroneous to assume that utility of incomes varies continuously, the principal disturbance arising out of alterations in the standard of life itself. In fact till a certain standard is reached, $\frac{du}{dx}$ is increasing first and decreasing out after, and with the sudden change in the mode of living becomes discontinuous. It would appear that Mr. Chapman, therefore, seeks to justify progressive taxation, not on the basis of any utility-sacrifice theory, but on the relative urgency of human wants. "The poorer a man is, some confiscation of income to cause him deprivation of comforts which add to efficiency—meaning the social value of his life or even the necessities of efficiency; the richer he is, the more likely is the curtailment of his consumption to be effected at the expense of luxuries which add little

¹⁴ Economic Journal, 1913, "The Utility of Income and Progressive Taxation," by S. J. Chapman.

or nothing to efficiency or even may diminish, and so the right basis has a certain reference to faculty." From a scientific point of view, if the continuation of the Edgeworthian principle of 'minimum sacrifice' is to be still desirable—as seems to be the case—there is need for the discovery of the law of utility which represents all our experiences evenly, as the income varies from the lowest conceivable to the highest attainable by Fords and Rockfellers. The search for such a function is similar to that which led in Physics to Van der Wal's equation for the representation of the behaviour of a fluid. Unfortunately, however, utility functions have to be deduced *a priori*, and neither is experimental work in Economics so far definitely realised, whereas in Physics or in many other mechanical sciences, all work can be reduced to a nicety of measurement. No one, for instance, pauses for a moment to deriving a quantitative relationship between the change in utility (which is a subjective feeling) and the electrical resistance, say, of a person is capable of. Here lies the plane of contact between economics and experimental psychology, and till our hopes are fulfilled on these lines there is room for critics to ignore our utility functions as pieces of guess work. Nevertheless, it cannot be denied that the mathematical method has served to enhance the exactness of economics, specially in this division of 'taxation,' and a just recognition of the scope of the mathematical method employed from Cournot to Edgeworth, may be confidently expected to lead to loftier heights of reasoning.

In conclusion, I have to express my thanks to Professor K. B. Madhava for all the warm support he gave me during the preparation of this article.

ECONOMIC BAROMETERS

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INTRODUCTION

One of the most important developments in the science of Statistics in relation to Economics during recent times has been the study of changes in the economic conditions of the past, with a view to forecast and control the tendencies of the future. To the businessman, to the manufacturer and farmer, to the banker and the financier, the significance of such studies cannot be easily exaggerated. If the businessman foresees a rise in the price of any stock, he will purchase large quantities of that stock, while if he anticipates a fall, he will try to dispose of the holdings which he has with the least possible delay. Similarly, in the case of the manufacturer and the farmer, if they find that there will be an increased demand in the near future for a certain kind of commodity or raw material, they will produce more of that commodity or raw material and *vice versa*. The banker and the financier also can adjust their policies more readily to the changing circumstances if they can forecast these alterations than if they were to trust themselves to chance. Each one of them can thereby increase his chances of success and avoid or reduce those of failure; and all can contribute much to the welfare of the community as a whole by the stabilisation of business conditions which would inevitably result from their acting upon the scientific forecasts furnished by economic barometers.

To an agricultural country like India, Economic Barometers are of the greatest value. Agriculture is the foundation of many other economic activities; such as the industrial and commercial,

which depend upon it not only for their very means of subsistence but also for their raw material and other stimuli. As has been pointed out by Mr. J. H. Thomas, the Lord Privy Seal and the Minister for employment in the British Cabinet, improvement of agricultural production in India can relieve to a certain extent the problem of unemployment in Great Britain by increasing the purchasing power of the Indian ryot and thereby creating a demand for British manufacturers and machinery. Besides transport agencies such as the railways and shipping services can also look forward to more work if there are large crops which have to be moved from one place to another. But the agriculturist himself will benefit most by such agricultural barometers. "Reliable crop forecasts ensure a more satisfactory course of prices; while in the absence of these, speculators would often manipulate prices in their own interests." Again they lead to a gradual adjustment of prices to the supply put on the market at each new harvest by furnishing information to the dealers about the condition of the crop beforehand. Finally if suggestions are made to the farmers about the raising of the next crop after a harvest, having regard to the conditions of the market—as is actually done by the United States Department of Agriculture—they will bring production more into conformity with the market requirements and lead to greater stability of prices.

Besides the agriculturist, the Government and the merchant are also vitally interested in the publication of agricultural statistics which will afford the basis for making forecasts. They obviously help the Government in forming their estimates of the next year's revenue and also to judge whether the resources of the country are increasing or diminishing and to adjust their policies according to the circumstances indicated by the forecasts. As for the merchant, it is evidently necessary for him to know in advance of the harvest of each crop what the produce is likely to be; and this information is furnished by agricultural barometers.

Before the war a number of attempts were made in Europe to merely register and measure the variations in many kinds of phenomena, not only economic but moral and social as well. Of such attempts the most important were those of Newman Spallart in 1887, of Sir W. Beveridge in 1909 and of Messrs. Mortara and Sorer in 1913. In all these attempts, no effort was made to forecast future economic tendencies. But they exercised a great influence on later work in that they not only showed the mutual interdependence of different phenomena but also suggested the possibility of predicting the almost regular ebb and flow of economic conditions known as economic cycles.

The earliest attempts however at the construction of economic barometers as such with the clear object of throwing light on the future were made in the United States. The Harvard Committee of Economic Research began its enquiries in 1917 and has since 1919 published a monthly "Index of General Business Conditions," in which they forecast the future based on a study of the statistical data relating to past economic phenomena. Nearly all the later attempts have followed the example of the Harvard University Committee. The most notable of these is that of the London and Cambridge Economic Service which has since 1921 been publishing every month an index chart of general business position on lines similar to those of Harvard. In Germany the Institute for the study of Business Fluctuations (*Konjunkturforschung*) set up in 1925 has been making minute enquiries into the mutual relations between economic phenomena.

CONSTRUCTION OF ECONOMIC BAROMETERS

Meaning and Explanation of Economic Barometers.

Economic Barometers are special statistical studies of past and present economic phenomena for the purpose of indicating future tendencies in order to serve as a guide to action. They are not mere compilations of statistics relating to economic

conditions, nor are they ' indices ' as such which show only the relative positions of the economic phenomena considered. They are attempts at making scientific forecasts of business conditions based on a thorough examination of all relevant data and with a knowledge of the underlying tendencies of economic life instead of trusting to haphazard methods and incomplete information. This comprehensive treatment of statistics for the purpose of predicting future economic conditions has been most successful in the United States and in Great Britain.

In the economic sphere it is possible to foresee future tendencies on the basis of past experience with greater certainty and accuracy than in other social sciences, for it has been discovered that in economics certain phenomena tend to recur in the future almost regularly under nearly the same or similar circumstances as in the past. " Future economic action ' cannot ' be wisely decided unless future economic probabilities are carefully analysed and such analysis is impossible without adequate statistics of existing conditions."¹ No doubt increasing attention is being devoted both by official and private organisations for the collection and publication of statistics which throw light not only on the conditions of particular trades and industries but also on those of national or even world-wide economic phenomena. But till recently very little attempt was made to interpret them scientifically. In the post-war period, however, careful examination of these statistical series are made with accurate forecasts of business conditions which have increased their importance and usefulness.

Selection of Data.

Several general considerations have to be constantly kept in view in the construction of any Economic Barometers. In the first place as it is based on a suitable series of statistical data,

¹ Jordon : Business Forecasting.

selection has to be made from among a mass of available material. This selection depends upon the object for which the barometer is constructed and also upon the availability of reliable and complete series of statistics relating to that object. If, for instance, the Economic Barometer is to be used for the stabilisation of business conditions in the interests of the whole community, then only those statistical series will have to be selected which indicate general movements affecting all industries. But if it should be the purpose of the barometer to guide businessmen in their own particular industry, then it is only the criteria suitable to that industry that has to be taken note of.

Another factor to be considered in the selection of data is that it should be suited to the economic conditions of the country with reference to which the barometer is constructed. For instance, in any barometer relating to Indian economic conditions, value of exported manufactures is not of much consequence as India is mainly an agricultural country and a large part of her foreign trade consists of export of raw materials and agricultural products in return for which she imports large quantities of finished goods and machinery. Again, even with reference to the same country the selection of the data to be used must be adjusted to the change in the economic conditions of that country. The United States, for example, is becoming more and more an industrial country and so the data pertaining to industrial conditions will have to be chosen in preference to those relating to agricultural conditions.

Besides these factors, the data selected should also satisfy the tests of 'reliability, comparability, sensitiveness and frequency of publication.' Statistics which are not published on reliable authority and those which are impossible of comparison due to frequent changes in their methods of collection cannot be of much practical use. Sensitiveness is important, because a sensitive index points out changes much earlier than one which is not so and therefore enables businessmen to plan their action more

effectively. The need for frequency of publication of up-to-date statistics is obvious and several forecasting agencies attach great importance to weekly surveys of business conditions and prospects.

Further, in the selection of statistics a point which has to be constantly kept in view is to choose such series as show a close correlation in their movements. The correlation may not be simultaneous but may be after a time-lag. But the very fact that some series rise or fall before others is important in predicting future tendencies. For instance, of the three groups of series used by the Harvard University Committee, viz., speculation, business and money—the movements in the first showed a tendency to precede those in the second while those in the second tended to come before those in the third. This observation of the regularity of movements in the three different groups has as a matter of fact enabled the Harvard Service to forecast future changes in the business and money groups of economic activities long before they actually set in by observing the changes in the speculation group.

The groups of series and their movement so far considered relate only to general economic conditions. But as the individual businessman is interested in changes in general economic conditions only in so far as they affect his own industry, it would be interesting and useful to examine whether a rise or fall in general business activity is accompanied by a similar movement in different industries and whether a particular industry is affected earlier than another by changes in general economic conditions and if so, what is the time-lag. For this purpose the construction of barometers for different industries is necessary and selection of statistical data will have to be made which will help to gain this object. “Already a number of business corporations have undertaken investigations on these lines both in the United States and in Great Britain. The most important of these are forecasts made by the American Telephone and Telegraph

Company. The General Motors Company, the American Radiator Company in the United States and by the British Electrical and Allied Manufacturer's Association and Messrs. Rowntree and Company in Great Britain."

Finally it is also interesting to see what relation, if any, exists between the movements of similar groups in different countries. Does a boom or a depression or other movement in an agricultural country producing raw materials precede a similar change in an industrial country? As a matter of fact it has been found that there is a tendency for speculations and business groups in the United States to come before those of the corresponding groups in Great Britain. The National Bureau of Economic Research of New York under the guidance of Professors Thorp and Mitchell has done very valuable original work in this direction. Statistical records of the economic and social activities of 19 countries including Great Britain, France, Germany, United States and India, covering a period of from 36 to 136 years have been analysed with a view to indicate the close relationship which exists between economic fluctuations in these different countries. After indicating the uniformity in the duration and course of business cycles since 1890 in all of them, Professor Mitchell concludes: "One's final reflection may be that quiet business forces working toward uniformity of fortunes must be powerful indeed to impress a common pattern upon the course of business cycles in many countries and the increasing conformity to an international pattern which the annual reveals in recent years show that international influences are gaining relative importance."²

Grouping of Data.

The next problem for consideration after the selection of suitable data has been made is the combination of the data so

² Introduction, p. 100.

selected. If only one series is taken as an index, it may be subject to disturbing influence peculiar to itself, while if a number of criteria is combined together, they may lose in sensitiveness. Economic changes of either prosperity, depression or revival, for instance, affect different industries differently and at different times. Agriculture may feel the effects of a depression first of all; this may affect the building industry which may in turn lead to a downward movement in the textile industries. Thus changes may take place only after a time-lag in each industry. Or again, there may be a severe depression in agriculture, while the transport industries such as railways, shipping, etc., or the clothing industries may at the same time be experiencing a period of prosperity. To combine together the indices of changes in these different industries would therefore be of little value, particularly for the purpose of enabling forecasts to be made of probable future tendencies; for, the composite index formed by grouping together indices which move in opposite directions would evidently lose in sensitiveness. It is only in exceptional cases that indices which are different in nature can be grouped together into a composite index and even then on condition that the separate indices used are also published with the composite index.

It must not however be supposed that no useful purpose is served by grouping together data into composite indices. They are of value for indicating the broad general tendencies and so long as the series of statistics used synchronise in their movements with one another, there is little harm in combining them together. But one point has to be kept in view while grouping together individual series. Due importance should be attached to each one of them and thus weighted, they may be united together into a composite in which each of the constituent series will exert its appropriate influence. As a matter of fact such composite indices are the basis of most of the forecasting services which also publish simultaneously the individual series of which the composite is made up.

Technique of the Construction of Economic Barometers.

Economic Barometers being statistical studies for the purpose of discovering the underlying tendencies and related movements to serve as a basis for forecasting the future, the first step in their construction is obviously the selection of statistical data. In this process, the considerations for such a selection described above must be kept in view. The next step is the combination of such data into a composite index and as already noted due allowance must be made for the relative importance of the individual series grouped together. This is done by applying a system of weighting, which ensures the exercise by each series of influences which its importance warrants.

Since the principal object of economic barometers is to guide businessman in forecasting the movements of the trade cycle, it is necessary to eliminate the influence of some or all of the other factors besides that of the trade cycle exerted on statistics of business activity. These factors are the secular trend, seasonal variations and accidental or exceptional factors. "Attention can then be concentrated on the cyclical movements of business activity with a view to the discovery of principles on which forecasts can be based."³ A bare mention only can be made in this Paper of the methods applied to eliminate the influence of these factors.

Secular trend is the general tendency of growth or decline, which business statistics of production, consumption, etc., show during a long period of time. Various methods are adopted for getting over influence of the secular trend. The most commonly used ones are those of the moving average and of the straight line. The latter method is adopted by the Harvard Service.

Seasonal variations affect many branches of business activity such as agriculture, building, textile, or transport industry. These may be due to seasonal or natural causes or to arbitrary

³ Economics Educator, p. 790.

variations of the calendar. A simple method of eliminating seasonal variations adopted by the London and Cambridge Economic Service consists in comparing and expressing the average monthly figure as percentage of the average annual figure calculated on the basis of the data for at least ten pre-war years and then applying this percentage for the different months to the recorded figures. If unemployment in May, 1924, for instance, were on the average 2 per cent below the annual average amount, the number of unemployed in that month would be increased by 2 per cent in order to eliminate the effects of those influences.

As regards 'accidental or exceptional' factors such as, wars, earthquakes, etc., their influence cannot in the nature of things be eliminated for such factors occur quite unexpectedly and therefore no exact calculation is possible of their influence and no definite method can be suggested for their elimination. Their effects can no doubt be mitigated to a certain extent by means of insurance but the very idea of insurance suggests the provision against uncertainty. This impossibility of completely eliminating the influence of accidental factors is a serious limitation of economic barometers.

The elimination of secular trend and seasonal variation having been effected, in order to render the series more comparable as regards their cyclical fluctuation it may be found that comparison is still difficult as some series show more violent fluctuations than others. As the purpose in view is to compare the time relation between the movements of different series, the normal variation of each series must be calculated by the method of standard deviation and then each series must be divided by its own unit of variability which will have the effect of extending the amplitude of those whose fluctuations are comparatively small and to diminish that of the series with wide fluctuations.

Finally the comparison of the different connected series to discover whether they show correlated movements may be made by the mathematical process of calculating the coefficients of

correlation or by the method of inspection as is done by the Harvard University Committee.

Certain Barometers Examined.

Having considered the problems and the technique of construction, a study may now be made of some important Economic Barometers in order to see how the methods are applied in actual practice. The best known and the earliest barometer is the one prepared by the Harvard University Committee of Economic Research in the United States.

First of all a selection of data was made which appeared *prima facie* the most reliable and significant from among those available and the separate series were then grouped together into three composite indices representing speculation, business and money. Speculation is now represented by New York Bank Debits and Industrial Stock Prices; Business, by Bank Debits of 140 Cities outside New York and Index of Prices of ten sensitive commodities and Money by Rate of 4—6 months' paper and Rate of 60—90 days' paper. It was found that each of these groups was subjected to four types of fluctuations, viz., a secular trend, a cyclical movement, a seasonal variation and residual elements. The secular trend and seasonal variations were eliminated by the methods already mentioned and the result gave 'Cycles' which were due to the ebb and flow of business activity. The residual elements are not eliminated so that they are present along with cyclical fluctuations in the statistics used. Finally a common measure of variability (the standard deviation) was adopted so as to make the fluctuations comparable.

It was seen that the three groups examined showed similar but not simultaneous cyclical movements. The speculation group rose or fell first, which was followed by movements in the business group while those in the money group came last. Calculations have been made of the most usual period of time-lag between the movements of the three groups. The most common

relation was for the business group to lag from 4—6 months after the speculation group and for the money group about six months after the business group. The observation of this sequence has been made use of to forecast when the turn of the cycles from rise to fall or *vice versa* is approaching. And since 1923 the Federal Reserve Bank authorities have attempted to regulate the rhythmic flow of business activities and maintain it at a steady level by means of credit control based on the forecasts suggested by the Harvard Index. During periods of prosperity with tendencies towards overproduction credit has been tightened while signs of depression in business have been checked by easier credit. Though it may not be possible to do away with the economic cycles altogether, yet it is certain that this policy of credit control has succeeded in reducing the intensity of their effects which has resulted in greater stabilisation of economic activity.

There are other forecasting agencies in the United States which have based their forecast on theory of sequence or time-lag adopted by Harvard Service. But the Babson's Statistical Organisation differs from these in that their forecasts are based on the principle that in business as in physics, action and reaction are equal and opposite, that is, if there is a rise in business activities to a certain extent above a normal level it is sure to be followed by a fall to the same extent. It is therefore necessary according to this theory to determine the normal level in relation to which the forecast of the actual is made. For arriving at this normal level the following method is adopted. Twelve series of statistics are selected and grouped into three composite indices representing mercantile conditions, monetary conditions and investment conditions. A common basis of comparison for these diverse denominations and the elimination of seasonal variations are secured by working out a set of 'Scale measures' for each factor for each month which indicate how the figure for a particular month is above the average for the basic year 1903-1904. The scale figures for each month for each factor are added

up, giving double weight to bank clearings, domestic money rates and stock market conditions and the final figure obtained is then the 'index of business conditions.' This summary index is then plotted as for an ordinary graph with an additional provision of a line of 'normal growth.' Some of the index figures fall above and some below this line of normal growth and there will therefore be a series of areas alternating above and below this line. The direction of the normal line is determined so as to obtain equal positive and negative areas. "The direction of this line, however, is changed as occasion requires and is now adjusted from time to time according to bank clearings."⁴ By means of this graphic representation it is believed that it is possible when a period of depression will cease and be compensated by a period of prosperity or *vice versa* and the probable duration of the succeeding period.

The most important forecasting service in Great Britain is the London and Cambridge Economic Service. Its forecasting is also based on the sequence theory and an attempt is made to utilise the relation between the successive movements of speculation, business and money. Speculation is represented by the price of twenty industrial stocks, business by the Board of Trade Index of wholesale Prices of Commodities other than food and the value of exported manufactures and money by the Short Money Index formed by taking the average of the Bank of England Rate, the Banker's Deposit Rate, the Three Months' Bill Rate and the day-to-day rate for the middle of each month. It is found that these groups rise and fall in the same order as that shown by the Harvard Index. One significant feature of the London and Cambridge Index is the representation of the business group by the value of Exported Manufactures. This is because this class of commodity forms the bulk of English output of which the major portion is sent abroad. The value of exported

⁴ Copeland : Business Statistics, p. 22.

manufactures, therefore, constitutes probably the best single series available as an index of business activities in England.

Position in India.

In India, practically very little has been done in this direction. There are no private organisations such as the Harvard Committee of Economic Research or the London Cambridge Economic Service which forecast general economic conditions nor are there any attempts made by business corporations to review the statistical series of particular industries and make forecasts of probable trends therein, as is done by the American Telegraph and Telephone Company in the United States of America or the British Electrical and Allied Manufacturers' Association in Great Britain. Economic life is allowed to take its own course without any conscious effort being made to study past and present business conditions for the purpose of making scientific forecasts and controlling the tendencies of the future.

There are a number of difficulties in the way of constructing Economic Barometers relating to Indian business conditions. In the first place the statistical data available are very meagre so far as the industrial, commercial and financial activities are concerned. Not only are they totally wanting in respect of some important items such as income, wealth, etc., but even in respects of those for which some data are collected, they are incomplete and do not cover sufficiently long periods enough to be made the basis for scientific forecasting. Besides, the data collected by either private or official agencies have not been compiled with a view to their being utilised for shaping the economic policies of the country. In fact as the Indian Economic Enquiry Committee remark "no satisfactory attempt has been made in British India to collect the necessary material on a comprehensive scale." Further, as Professors Throp and Mitchell observe in the *Business Annals* "It is more difficult to detect the general drift of affairs in a country like British India with a wide diversity of conditions

than countries like Brazil or South Africa where business seems to be denominated by a few well-recorded factors " (p. 20). And without sufficient information regarding the different economic activities of the people—industrial, commercial and financial it is dangerous to forecast the highly complex and variable tendencies of the future.

However, some attempts are made at agricultural crop forecasts by Government agencies. In such publications as, 'Estimates of the Area and Yield of the Principal Crops of India,' the 'Indian Trade Journal' and the 'Agricultural Statistics of India,' forecasts for all India are published for important crops such as wheat, cotton, jute, oil-seeds, indigo and sugarcane. The 'Indian Trade Journal' also contains the provincial crop forecasts. These forecasts give an account of weather conditions affecting the growth of a crop, the state of the crop in foreign countries, besides the usual estimates of the area sown and the outturn of that crop. Of the three factors necessary for forming a crop forecast, viz., the area sown, the standard or normal yield and the estimate of condition, the annual figures of the areas sown with the various crops are on the whole accurate. But as regards the standard or normal yield which is based on crop-cutting experiments supplemented by the information provided by trade statistics, the result is not satisfactory chiefly because of the practice of selecting by the eye the 'average' crops for such experiments. As for the condition estimate (anna valuation) or the relating of the crop reported on to the standard yield per acre, it is a visual one and is prepared by the village accountant who is a pessimist in such matters and is apt to under-estimate the actual state of affairs.

The agricultural statistics of India are moreover meant primarily for the information of the Government and only secondarily for that of the public. No doubt, both of them are equally interested in getting accurate information and mutual collaboration is necessary for the purpose. But there are some

important obstacles in the way. "The illiteracy of the average producer, the interposition of a number of middlemen between him and the substantial trader, who is possessed of the education and the vision to appreciate the advantages of organised information, the size of the country, the small and scattered units on which crops are for the most part grown, the deep-rooted disinclination of the cultivator to admit that his crops are even normal and the absence of standardised weights and measures are all formidable difficulties. But with time and patience and organisation, these difficulties can be overcome for all principal crops as within the last decade, they have been largely overcome for cotton."⁵ And as interest in statistical methods increases, there is every reason to hope that the collection of statistical data for the construction of Economic Barometers will be improved, not only in quantity but also in quality, which will render the setting up of forecasting agencies practicable and thereby make the course of economic life more stable in the general interests of the whole community.

Uses of Economic Barometers.

Economic Barometers serve a number of useful purposes. One of the fundamental problems of Economic dynamics is the discovery of the principles underlying the sequence of economic fluctuations. Alternations of good and bad business conditions are common features of modern industrial life and attempts have been made to find the causes of these fluctuations and the extent of their regularity in order not only to reduce their intensity but also to control their effects in the interests of the community as a whole. In these attempts Economic Barometers afford a substantial aid.

By an examination of the statistical series of different kinds of business activity, it has been found that there is a certain

⁵ Report of the Royal Commission on Agriculture.

regularity in the recurrence of economic fluctuations. The term 'business cycle' is used for the ebb and flow of economic life, the complete cycle beginning with a depression followed by a period of revival in industry and trade, leading on to the exaggerated activity of a boom, culminating in a crisis when the check to activity occurs, ending in a period of stagnation and depression. The duration of the cycle differs from about six to ten and a half years in some countries, while in the United States it seems to have covered only a period of three to four years. There are major and minor fluctuations one or two minor cycles occurring between two major ones.

A number of theories have been advanced to explain this rhythmic movement of economic phenomena. They range from the sunspot theory which relates the appearance of sunspots at certain intervals with weather conditions and size of the crops to that which explains the cycle as the result of psychological reactions of financiers, manufacturers and merchants.

It is not necessary for us to discuss the various theories advanced. One feature has however to be noted, viz., that modern industry, commerce and agriculture are based on a money economy and the movement of the general level of prices is an important factor in generating economic fluctuations. Periods of increasing business activity are usually marked by rising prices and those of declining activity by falling prices. Changes in the general level of prices tend to set up reactions which involve readjustments in the processes of production resulting friction, disorganisation and economic waste. The stabilisation of the general price level is therefore the primary object to be aimed at by those who wish to control future business conditions in the interests of the whole community. And since the general level of prices in a country is closely related to the volume of currency it is possible to control the price level by means of a well-directed credit policy on the part of the Central Banks. In effectively pursuing this policy, Economic Barometers render the greatest assistance by forecasting

the general level of prices. As a matter of fact the Federal Reserve Board in the United States has derived much help from the forecasts made by the Harvard Index in their policy of Credit Control aimed at the stabilisation of that general level and thereby of the economic life of the country and so to minimise the wasteful effects of business fluctuations.

Economic Barometers further serve as a guide to businessmen so that they might increase the profitableness of their industry or avoid losses. For gaining this object, businessmen are particularly interested in knowing beforehand when the change from activity to depression occurs and *vice versa*. If, for example, a rise in the prices is foreshadowed leading to a period of prosperity in the near future, traders will find it profitable to increase their stocks immediately and release them when the prices increase. Exactly opposite will be the action taken in case prices are likely to fall and a period of depression is impending. In forecasting these changes whether of a rise or fall in prices leading to a period of prosperity or depression, Economic Barometers will be undoubtedly of great help. The more accurate and complete the information available for making such forecasts and the greater the number of people who act in accordance with them, the steadier will be the course of economic life.

Finally Economic Barometers make it possible to deliberately control future conditions in the interests of the community as a whole. It is believed that the future may be controlled for establishing more stable conditions by the action of sufficiently powerful groups. But certain speculations have successfully manipulated changes in prices to their own advantage, thereby increasing instability in economic life. If it is possible for a small group of speculators to deliberately manipulate future conditions in their own interests, it must be equally possible to control future conditions in the interests of the community as a whole. However, for such action to be effective, complex and relevant data of past tendencies and present conditions must be

available for the guidance of those responsible for such control. In providing the necessary foundation of statistics as a basis of forecasting, Economic Barometers are obviously very important and useful.

Limitations of Economic Barometers.

Having considered the uses of economic barometers it is necessary also to know the limiting factors which affect their accuracy. Apart from the influence of 'accidental' elements such as wars, earthquakes, epidemics, strikes and lockouts, there are other limitations due to the imperfections in the statistical series available and in the methods applied in their construction. There are always varying margins of error which it is impossible to completely avoid. For instance, delay in obtaining the most recent figures is in some cases a serious handicap. Also for some series, reliable data are not always available. "They may be vitiated by the personal equation of the compiler or by the particular purpose for which they are compiled." These limitations could be overcome by improvements in the quality, availability and in the collection of statistical data. Besides, the technical methods adopted for eliminating the secular trend and seasonal variations are far from perfect and the residuals left after these eliminations contain not merely the influence of the cyclical fluctuations but also the effects of random factors peculiar to the series used. "Even if a statistician had relatively abundant raw material to work up, he would not claim that his results formed a fairly accurate record of changes in business conditions. In his eyes the best results he can get remain approximations, limited by the errors of the underlying data and uncertainties of his technical methods."⁶

But the most fundamental difficulty in the way of scientific forecasting is that there are few time series which cover a

considerable period fully. Neither a single index not even such an inclusive one as the volume of checks cleared outside of New York, nor a composite index which is an average of movements in several indices can satisfy the requirements completely. In the former case of a single index it cannot be taken to represent all important phases of business activity. Payments made in coin and paper, money or those made by cheque in New York and in towns without clearing houses are, for instance, obviously excluded by the index representing only cheque clearings outside of New York. Besides fluctuations in the volume of cheques cleared are quite different from those in the volume of goods produced, exchanged or consumed, and from those in employment, etc. And these are as much part of the movements in business activity as the changes in the volume of cheques cleared. Yet these are left out of account altogether.

As regards the composite index also there are important lacunae. In the first place the separate indices which are the basis for arriving at the composite index are those for which statistical figures happen to have been collected for a long period and not those which a statistician would choose if he were trying to construct an index. Besides, there are the problems of interpretation of a composite index made by grouping together changes in series so different in their nature as say price indices, value of exported manufactures and volume of pig-iron produced.

Apart from the difficulties connected with the availability of statistical data and the technical methods of construction, Economic Barometers are also limited in their objects. They are useful in forecasting large movements only and the minor changes, e.g., of prices from week to week or from day to day are not indicated. Though these are in fact not included in their objects yet a study of scientifically constructed Economic Barometers will undoubtedly give a hint of these fluctuations earlier than if the study were not made.

Besides, Economic Barometers cannot be expected to afford

ready-made solutions for the problems which a businessman has to face in the course of his business as it will be most necessary for him to adjust his plans and actions to sudden and unexpected emergencies caused by changes in any one of the numerous factors influencing his particular line of business. All that the Economic Barometers can do is to act as guides to broad general movements which are beyond the special sphere of his operations, but which may yet seriously affect conditions within that sphere. Even in the case of barometers constructed for particular industries they can at best be of limited value and cannot be taken as automatic guides to action.

Provided account is taken of other factors, Economic Barometers can be made to effectively secure their purpose, viz., to render economic conditions more stable by forecasting future changes and minimising the evil effects of economic cycles. General economic conditions must never be lost sight of before any action can be taken on the basis of the information provided by Economic Barometers. It is only if economic conditions continue to remain unchanged that an analysis of past statistical series can be used as infallible guides to action. But this can never be in the extremely complex and dynamic society of modern times, not even in the case of the 'unchanging east.' And so allowance must always be made for changes in the general economic structure of a country, e.g., in its banking organisation, in its foreign trade, or in its general system of production, etc., before Economic Barometers can be made to usefully serve as guides to future action.

Summary and Conclusion.

An attempt has been made in this article to show the importance of Economic Barometers with reference to Indian conditions and a brief review has been made of the various attempts, both pre-war and post-war to study past economic conditions for the purpose of predicting the future. The position in India

as regards the statistical information available as a basis for forecasting the future tendencies has also been sketched. Next the meaning and explanation of Economic Barometers have been given with a description of the factors to be considered and of the methods adopted in their construction. An examination is then made of the most important Economic Barometers in the United States and Great Britain indicating how the sequences and relations between different series of statistics are utilised for the purpose of forecasting. This is followed by an account of the uses that can be derived from Economic Barometers together with their limitations and the means of overcoming or minimising the effects of the latter.

It must however be admitted that Economic Barometers are not infallible guides to action either for businessmen in their particular branches of business or for the community as a whole. In every case they must be supplemented by an examination of all the factors affecting the particular problem under consideration. As Professor Jordon observes: "No single barometer can be accepted as definitely indicative of coming events. The shadow that is cast before must be sought in diverse developments rather than through one factor alone. The range of fallibility is materially lessened when several indices forecast a similar trend. A simultaneous grouping of large harvests, favourable bank settlements and an improvement in conditions abroad is far more certain to indicate a prospective betterment in business activity than any of the factors individually."

The construction of Economic Barometers is yet in an experimental stage and much path-breaking work remains to be done. But it must be said that even at this stage the practical benefits derived from a study of Economic Barometers have been substantial. To the businessman, though they do not provide him with the automatic forecasts yet they supply him with all relevant

statistical data in a convenient form as a basis for making sound forecasts. They also bring to his notice various general economic tendencies likely to affect his business, but which being outside the main field of his activity might otherwise be overlooked. And even so they render real assistance to the businessman. At the same time they do confer a lasting benefit on the community by indicating the future course of action so as to reduce the intensity of economic fluctuations and control them, thereby minimising the social evils with which they are accompanied.

Finally, the potentialities of Economic Barometers are great. The period of local and national economy is over. The world is being knit closer and closer together in the economic sphere. National barriers are gradually being broken and the idea of European Economic Federation is put forward which may become a World Economic Federation. For some commodities such as international securities and stocks, rice and wheat, cotton and jute, etc., markets are fast becoming world-wide. The principal demand for Bengal jute is from Aberdeen Manufacturers, Mysore Sandal Oil is sold in the London and Continental markets, while Manchester Cotton goods, German toys and Japanese and Swedish matches are to be found in the remotest corners of India. Thus there is a wide disparity between the producer and the consumer, and the tendency is for this gulf to be widened. Naturally the producer must plan far ahead while the businessman and the stock-dealer must ever be on the watch for any small change in the distant parts of the world which may influence the supply of or the demand for the particular commodity in which he is interested. In all these directions Economic Barometers satisfy an essential need by means of their scientific forecasts. They are at present however not quite perfect. But the tendency towards spread of business relations and the accompanying trend toward world unity in the economic sphere increase the usefulness of Economic Barometers. And with the attainment of greater perfection both in the collection of statistical data and in the methods of their con-

struction, with the growing realisation of their advantages on the part of an increasing section of the public and with more effective co-operation between the various statistical organisations—not only national but international—there is no doubt that Economic Barometers hold out immense possibilities for the future.

SOME RECENT CONTRIBUTIONS TO THE WIDER THEORY OF PERSONAL DISTRIBUTION.

BY

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I

Professor J. B. Clark, "the greatest constructive general theorist that America has yet produced,"¹ published his *Distribution of Wealth* in 1899, and his *Essentials of Economic Theory* in 1907. We are told therein that "the whole income of the world is, of course, distributed among all persons in the world; but the science of distribution does not directly determine what each person shall get What we wish to ascertain is solely what fixes the rate of wages, as such, and what fixes the rates of interest and of net profits, as such."² And again, "the science of distribution should tell us primarily, not what any man personally gets as a total income and how well he is off compared with other men, but in what ways the wages of his labour, the interest on his capital, and the return for the entrepreneur's function are fixed."³ Writing in 1912, Prof. I. Fisher distinguishes in his *Elementary Principles of Economics* the two modes of distribution of income, first between the agents that produce it, and second between the persons who receive it, and that as regards the second, "no other problem has so great a human interest as this, and yet scarcely any other problem has received

¹ Quoted by Dalton as a remark of Prof. Haney's.

² *Distribution of Wealth*, pp. 5-6.

³ *Essentials of Economic Theory*, pp. 89-90.

so little scientific study.”⁴ In the preface to his invaluable study, *The Inequality of Incomes in Modern Communities*, published in 1920, Dr. H. Dalton says, “distribution as between persons, a problem of more direct and obvious interest, was either left out of the text-books altogether, or treated so briefly, as to suggest that it raised no question, which could not be answered either by generalisations about the factors of production, or by plodding statistical investigations, which professors of economic theory were content to leave to lesser men.”⁵ In 1926,⁶ the same complaint is emphasised: “hitherto the attention of economists has been concentrated almost exclusively on the mechanism by which the wages of labour, the rent of land and the profits of capital and enterprise are determined. As to the actual distribution of national income, there has existed a feeling of uncertainty even about so important a question as that of whether there is in distribution sufficient regularity to justify any definite conclusions as to its underlying tendencies.” Even as late as 1928, Professor Hubert Phillips was obliged to confess⁷—“let us regretfully admit at the outset that there does not, as yet, exist a satisfactory theory of distribution, such as, theoretically one would think it possible to formulate. The labours of successive generations of economic thinkers have built up a fairly satisfactory theory of value; given, that is to say, certain assumptions—which can be made to approximate not unreasonably to the conditions of society in which we live—we can intelligibly relate, in the sphere of exchange, economic causes and economic consequences. But comparable progress has not been made in the sphere of distribution. While, that is to say, we have a number of generalisations to put forward which are interesting and valuable in themselves, we shall not be able to present a picture of the relations between exchange and dis-

⁴ P. 465.

⁵ P. vii.

⁶ Prof. S. N. Procopovitch, *Economic Journal*, March, 1926, p. 69.

⁷ Pitman's *Economics Educator*, p. 1081.

tribution which has comparable validity as a statement of causes and effects. The problem is one which has so far baffled the ingenuity of economic theorists. Their difficulty, of course, is not that the phenomena which they are concerned to explain are unintelligible, but merely that they are too intricate; a theory of distribution which is to be worth anything must rest, inductively, in a statement of the relevant facts themselves, and the relevant facts do not lend sufficiently well to simple generalisations to enable a theory comparable to our theory of production and of exchange to be constructed." I may now state that the broader theory of distribution must comprehend how the *social dividend*—"that aggregate of exchangeable goods and services which is brought into being by the community's collective efforts to satisfy the community's collective needs"—is shared among those producing it. And by the term 'factors of production' must be covered not merely the three (or four?) markets in which the entrepreneur deals with the respective owners of the classical factors of production, but also these owners themselves. The causes of inequalities of distribution, and the means of assessing such inequality, and the means of remedying the same, the associated problems of poverty and of property, the reorganisation of industry in whole or in part on a socialistic basis, and generally the State intervention or 'the authoritative element in distribution' have markedly come to the forefront in modern economic thought.

II

In this paper it is proposed to describe briefly the contribution of the economic thought during this century in this regard, but from the above quotations, it is not to be inferred that neither inequality, nor the causes leading thereto, of the distribution of individual incomes were considered at all in the past. Ricardo recognised that the laws which regulated this distri-

bution was the 'principal problem in political economy.'⁸ Sidgwick says⁹ "under the head of 'distribution and exchange,' we examine the different proportions in which the produce of industry is shared among the different economic classes that have co-operated in producing it, the ratios in which different kinds of wealth are exchanged for each other, and the causes determining these proportions and ratios." Commenting on this Dalton expressed himself,¹⁰ "we have here either a definite repetition of the unfulfilled pledge of Say and Ricardo to expound the variation of aggregate wages, interest, and rent relatively to one another, or else a careless use of words." As a matter of fact, economic thought was not very clear even in regard to fundamentals, for instance, whether the theory of distribution was 'personal' or 'functional,' whether the theory of distribution was included within, or dominated the theory of value, Prof. Clark, for instance, wrongly holding the latter in each case. In Jevons' *Principles of Economics* published posthumously in 1905, we read¹¹, "the whole subject of distribution of wealth is nothing but as a result of the theory of value. Wages, profit, interest, rent are but the prices at which the owners of diverse kinds of property are able to sell them." Edgeworth has written several articles which deal in an interesting way with the theory of distribution, but the opening sentence of his longest article¹² is "distribution is the species of Exchange by which produce is divided between the parties who have contributed to its production" . . . Given the parties in this particular species of exchange, he asks, "what causes contribute to the shares of their produce?" Here conspicuous warning is given to both parties "not to attempt to benefit

⁸ *Works* (McCulloch's Edn.) p. 5 quoted by Dalton, op. cit., p. 52.

⁹ *Principles of Political Economy*, p. 12.

¹⁰ Dalton, p. 101.

¹¹ P. 50.

¹² *Collected Papers*—Vol. I, p. 13 being the substance of lectures delivered in Harvard University in 1902.

themselves by a considerable reduction in their supply of service; for though they might possibly obtain a larger proportion, they would obtain a smaller portion, of the average product." Noticing this Dalton writes,¹³ "Here we seem to be on the verge of an analysis of the conditions of increase in 'portions' and 'proportions' respectively, but Professor Edgeworth abruptly drops this line of reasoning and never picks it up again. He goes on to examine other points in the theory, and in particular the question how far the incomes of businessmen are determined by their marginal productivity."

Both this 'marginal productivity' theory and the analysis of the conditions of 'portions' and 'proportions' are to-day the avenues along which economists have of late reached grand truths of wealth and welfare. Thus we have the celebrated theorem, so inseparably associated with the honoured name of Marshall that

"the payment of each factor of production tends to be equal to its marginal net product, which latter again tends to be the same in all employments."

under the modern capitalist system in a relatively stationary state, together with the modification of this theorem in terms of the various elasticities of supply and demand when considering the dynamic non-stationary state. To this the genius of Professor Pigou¹⁴ has added the following two general propositions of wonderful significance and power:

"the absolute share of any factor increases or diminishes, as a result of a small increase in its supply, according as its elasticity of demand is greater or less than one";

"the relative share of any factor increases or diminishes, as a result of a small increase in its supply, according as its elasticity of demand is greater or less than the reciprocal of the relative share, before the increase, of all other factors taken together."

These propositions have well-known modifications when the in-

¹³ Dalton, p. 114.

¹⁴ *Wealth and Welfare*, pp. 92-3 (footnote)

creases, instead of being small, are moderate in size. In order to apply to practice, these abstract arguments in relation to articles mutually complementary or rival, we need to remember that, other things being equal, 'A' will be complementary (or rival) to 'B,' provided that as the greater the elasticity of supply of 'A' is, the elasticity of demand of 'B' is greater (or smaller).

What power and range of applicability these theorems have, will doubtless have impressed all who have read Dalton's admirable study, but it is noteworthy that this diagnosis of inequalities in distribution incidentally offers the means of remedying the same. In the first place the clear distinction between *absolute* and *relative* shares, is itself an advance in clarifying the ideas of social justice, but, for obvious reasons, I shall not deal with this further. But on the main track, recognising the two chief sources of income in modern societies, viz., 'the performance of work' and 'the ownership of capital' (omitting for the present the remaining two important sources, namely, 'civil rights' and 'private gifts,' which really shade into the first two respectively, though imperceptibly), Dalton has arrived at much clear thought. It is impossible, however, to summarise it all—in reality, it extends throughout his book—but I will content myself in noting down here what appears to me to be the dominating results:

Work.

Property.

- (1) They are on the whole complementary and not rival—at least in a given state of knowledge, and of consumers' demand.

Hence increase in supply of either increases the total demand for the other.

- | | | |
|---|---|---|
| <p>(2) Elasticity of supply of work</p> <p>The former is less than unity (though positive)...</p> | <div style="display: inline-block; vertical-align: middle;">is generally less than</div> <div style="display: inline-block; vertical-align: middle; border-left: 1px solid black; padding-left: 5px;">less than</div> | <p>that of property.</p> <p>the latter, greater than unity.</p> |
|---|---|---|

*Work.**Property.*

- (3) Hence the elasticity of demand for work is considerably greater than that for property.

The former is very much greater than unity; in the latter, that for capital is greater than that for land, (the difference diminishing as the share of land declines), both together, however, being greater than unity.

- (4) Applying Pigou's theorems, as regards *absolute* shares, there is harmony of interest between work and property to the extent that, as either or both increase in quantity, the absolute shares of both increase. "This is a conclusion of great practical importance."¹⁵ It is essential that this should be so, that production should increase in relation to population.
- (5) As regards *relative* shares no such harmony exists.

Workers' *relative* share stands to increase by the greater elasticity of demand for work; Property owners' relative share stands to increase by the greater elasticity of supply of property.

Among other causes, those arising out of differences in value per unit in remunerating different sorts of work are serious: They can be traced to (1) sex, (2) seasons, (3) industries, and suit- Considering the factors land, demand, inventions, industries of differing importance, there is "an apparent tendency under modern conditions for the relative share of property to increase at the expense of the relative share of work." The inequality of property in-

Work.

able remedies are attempted through (i) minimum and standard wages, (ii) 'vertical mobility,' (iii) trade unionism, (iv) Insurances against maternity, sickness, unemployment, etc., (v) housing and education—thus we are imperceptibly beginning to trespass into the region of income through 'civil rights.'

Property.

comes depends, in part, upon the relative share of public and private property—worsening as the latter increases. Ely gives examples of riches through Post Office of 'the family of Thurn and Taxis,' and now through railways in the United States. Also private monopolies and cartels always accentuate inequality. As for private property, inequality arises out of (1) differences in savings (to be remedied in part) by offering inducements for the poorer, (2) fortuitous changes in value of particular pieces of property (is of doubtful value and may when helping the poorer reduce inequality by itself), and (3) custom and law in inheritance and in private gifts. This last is a serious factor, and capital levy and in general taxation is planned in modern communities with a view to reduce some part of the inequality—but here again we are imperceptibly beginning to trespass into the region of income through 'private gifts.'

Another factor in inequality, which is of special importance during recent years, and which may be more particularly called 'variability in incomes,' is the possibility of changes in the value of money, when, as is well-known, rising prices benefit debtors, and falling prices, creditors, changes in distribution depend on the speed and facility with which different classes in society can benefit thereby.¹⁷ Since 1900 and more particularly after the War, the transfers of income brought about by rising prices have left salaried persons, wage earners and even fixed interest Government security-holders poorer and businessmen richer. Alternatively, when "as a result of deflation or otherwise, prices are brought down, and a tendency towards reduced inequality thus set up, a tendency in the contrary direction will also be set up, unless a large part of the debt is rapidly redeemed by means of a Capital levy or otherwise."¹⁸ Indeed the question of the relation between purchasing power and distribution is a big and important question, and we need not go into it here. In the conditions of modern communities, however, where the greater part of the income from property goes to a numerically insignificant fraction of the population, while the great majority of the people derive nearly all their income from work, there is a presumption that an increase in the relative share of property will involve an increase in the inequality of incomes. Moreover it is certain that in nearly all countries there is a pronounced inequality in distribution in some manner or the other, and it is certain also that a greater degree of economic welfare is attainable under circumstances of more even distribution. It is not so much how many of these propositions are new or old, but it is a great advance that we have now obtained in clarifying to the extent indicated our ideas of distribution, and a great satisfaction to realise that so many theorems are directly derivable from the general laws so ably propounded by Pigou. Here we have a

¹⁷ Layton, *Introduction to the Study of Prices*, p. 15, etc., Irving Fisher, *Purchasing power of Money*, p. 185, etc.

¹⁸ Dalton, p. 350.

justification also in the application of the mathematical method to clarify and to extend our ideas, as much to economics as to other sciences whereto it has been a very serviceable handmaid.

III

The *measurement* of inequality is essentially a statistical problem and whatever advance has taken place along this direction must entirely be acknowledged to the statistical mind. It is admitted¹⁹ that "the problem of the measurement of incomes has not been much considered by English Economists. It has attracted rather more attention in America but it is in Italy that it has been most fully discussed." But at the outset it must also be conceded that the economist has as yet failed to supply the clue of what is to be conveyed by the conception 'inequality' itself as applied to incomes, viz., whether it is to be in terms of the magnitude, or the economic welfare, that such income implies. Professor Persons was satisfied²⁰ that this inequality was identical with that of "the biologist in determining the measure of the inequality of distribution of any physical characteristic." Dalton himself stated that a partial analogy was supplied by the practice of measuring the inequality or otherwise of any precipitation of rain, not merely in terms of the inches of fall, but to correlate it in some manner with the seasonableness of the fall and the receptivity of the soil. Professor C. Gini catalogues²¹ an admirable summary of recent statistical work in Italy in which the interpretation of such measures when applied to biological demographic and economic conception has been dealt with at some length. In fact, even the very term that Italian writers are accustomed to use, viz., 'concentration,' is by itself

¹⁹ Dalton, *The Economic Journal*, Vol. 30, 1920, p. 348.

²⁰ Persons, *Quarterly Journal of Economics*, 1908-9, p. 431.

²¹ C. Gini, *J.R.S.S.*, July, 1926, Vol. 89, p. 703; he had previously given an account in greater detail of 'concentration' particularly in *The Economic Journal*, March, 1921, Vol. 81, p. 124.

ever so much more suggestive than 'distribution.' Dr. Dalton was obliged to make hypothesis in regard, first, as to the functional relation between income and economic welfare and secondly, to assume that the latter would obey the law of 'additions' (or more generally, what mathematicians are accustomed to call, the associative law). Professor Procopovitch recently published²² the formula he would like to measure 'coefficient of inequality' by, and a term known as *budget units*, which he successfully worked into many statistics, and quickly followed Mr. F. W. Pethic Lawrence²³ with its application to certain modified statistics of the United Kingdom too. I have noted down another recent paper (probably by the late Dr. Lehfeldt), but I cannot however trace it now. Dr. Maurice Parmlee admits²⁴ that it is difficult to arrive at an accurate estimate of the inequality of distribution, but gives an interesting summary of the various approximate estimates that have been made in the United States. But all writers, probably without one single exception even are agreed that the available statistical information is too meagre to admit of any refined methods, Dr. Dalton himself comparing his paper to "an essay in a few of the principles of brickmaking" and waiting for straw; Mr. J. E. Allen²⁵ asking that "there should be statistics of the smaller incomes, i.e., those below 130*l.* a year; Mr. W. I. King having a paper specially for "Desirable additions to statistical data on wealth and income."²⁶ In that same place where the last-mentioned article appears is printed also, the late Mr. A. A. Young's paper "Do the statistics of the concentration of wealth in the United States mean what they are commonly assumed to mean?" This query may appear like a bolt from the blue, but as I said in the course of this paragraph, the

²² The *Economic Journal*, March, 1926, Vol. 36, p. 69.

²³ *Ibid.*, p. 302.

²⁴ "Poverty and Social Progress," Macmillan, 1906.

²⁵ *J.R.S.S.*, 1920, Vol. 83, p. 86.

²⁶ *Quarterly Publications of the American Statistical Association*, March, 1917.

economist has yet to invent his instrument for measuring economic welfare, and has yet to formulate the precise functional relationship this bears to money incomes as the independent variable.

On the assumption in regard to the marginal economic welfare referred to above, that Dalton makes, he is naturally led to the conclusion that economic welfare will be maximum when the incomes are all equal (a proposition capable of mathematical proof on very simple terms). He therefore measures the inequality of distribution as the ratio (less unity, if you please), of the total economic welfare under this equal distribution to the total economic welfare actually attained under the given distribution. This conception leads him to make

$$\begin{aligned} \text{measure of inequality} &= \frac{\log. (\text{arithmetic mean of incomes})}{\log. (\text{geometric mean of incomes})} \\ \text{or more simply} &= \frac{\text{arithmetic mean of all incomes}}{\text{geometric mean of all incomes}} \end{aligned}$$

Dr. Dalton despises the Bernoullian hypothesis and then proceeds to construct a formula connecting income with economic welfare which may be "even tolerably realistic" and which shall therefore assume (1) that after a certain stage, economic welfare increases more slowly than incomes, (2) that it shall not exceed a certain maximum limit, and (3) that it should be zero at a certain low income and negative further lower down. His function for utility is then $w=c-1/x$; and therefore his formula for inequality is (the constant c above less the reciprocal of the arithmetic mean of incomes) divided by (the constant c again less the reciprocal of the harmonic mean of incomes). This assumption has always reminded me of what is now known as Logistic law of population growth enunciated by Pearl²⁷ and I have let myself go into digression in my classes with the construction of measures of inequality on this assumption as well also on the two other assumptions referred to by Edgeworth.²⁸ We read there—"perhaps the guess

²⁷ R. Pearl, *Studies in Human Biology*, Chapter XXIV.

²⁸ *Collected Papers*, Vol. II, 'The Pure Theory of Taxation,' p. 109, footnote (2).

which has attracted more attention after Bernoulli's is Cramer's suggestion that the pleasure afforded by wealth may be taken to vary as the square root of its amount": $y_m = \sqrt{\frac{x-a}{b}}$. Edgeworth

himself offers the probability function: $y_m = Ae^{-\frac{(x-a)^2}{b}}$ and is satisfied that "in fine the view here combated has no doubt derived some adventitious aid from the supposed practical necessity for adopting a proportional income-tax for very high incomes." For these two or three suppositions, it is not easy, however, to construct this measure of inequality, nor to describe it in words.

Failing any precise knowledge of utility—law, other plausible measures of inequality have to be constructed, and what is called the principles of 'transfers' has been much invoked, whereby 'sensitiveness' to the 'transfers' of money as between persons is to be the touchstone. One is therefore to be satisfied with the simpler statistical measures of variability, viz., either the absolute measures (1) mean deviation, (2) mean difference of the Italian school, (3) the standard deviation and (4) the quartile deviation, or the respective relative measures obtained by dividing the first three by the arithmetic mean, and the last by the sum of the top and bottom quartiles. I must also state here that there are at least three other well-known measures, viz., (5) Pareto's measure α (or is it better to use its reciprocal?), (6) Professor Gini's δ and (7) the area between the curve and the diagonal in the Lorenz diagram (expressed as a ratio to the area of the square, of course), although I do not think it any advance to deal with Procopovitch's formula. Nor is it necessary to examine these formulæ and heap upon them criticism or qualified appreciation but I think it is sufficient to indicate here only the chief conclusions arrived at by this method if only to show how this method has served again to extend or clarify our ideas.

- (1) It is sometimes suggested that proportionate additions to, or subtractions from, all incomes will leave in-

equality unaffected.²⁹ But says, Dr. Dalton, on the assumption of his definition of inequality "this is not so . . . it appears that proportionate additions (and *a fortiori*, equal additions) to all incomes diminish inequalities, and subtractions on the other hand tend to increase inequalities."³⁰

- (2) Again "neither an increase in the minimum income nor a diminution in the inequality of incomes can come about, except when the total income increases more rapidly than the population," a result proved by Pareto. In other words, increased production per head is both a necessary condition and a sufficient guarantee of the diminution of inequality. It must be interesting to speculate here on the relationship of unemployment to inequality, as has been done in Parmlee's 'Poverty and Social Progress.'³¹
- (3) "Wealth is far more unevenly distributed than income," in the United Kingdom, say Professors Caradog Jones and Carr-Saunders, and in other countries also, one may add freely. In his 'Poverty and Inheritance' (p. 19) Professor Clay has estimated that while nearly 77 per cent of the population owned only 7 per cent of the property, 73 per cent of the population owned in incomes at least 35·5 per cent. As regards the United States, Watkins ('Growth of Large Fortunes'), says, "For wages, the upper decile is less than twice the median down to five-fourths the median, for salaries it is twice the median, and for property eight times the median."
- (4) Differences in the conditions between the urban and the agrarian populations have been considered by

²⁹ Taussig, *Principles of Economics*, II, p. 485.

³⁰ The *Economic Journal*, 1920, Vol. 30, pp. 355—7.

³¹ *Social Structure of England and Wales*, p. 116.

Prof. Procopovitch in a very interesting manner,³² and his conclusions are (i) the slowness of agricultural progress as compared with the industries in towns, was bound to create a great difference in the levels of economic prosperity and general culture in favour of the latter, and (ii) in order to make up, though slightly, for this difference, the farmers in Western and Central Europe are compelled to have recourse to some extension either by exodus from villages to towns, or by a fall in the birth rate, the former helping but little to improve the situation.

- (5) P r o f. Procopovitch Sir Josiah Stamp writes,³⁴ "In- gives the following equalities of wealth appear evidence³³ and says, be statistically less in France, and probably in Germany, and certainly in Italy. In all these the average standard of life is lower than in the countries where inequality is greatest. There is, thus no statistical correlation between extremes of inequalities and poverty of standard. The association is probably in the opposite direction, but this is of course no proof of actual or causal connection."

Country.	Coeff. of inequality.	Income per head of population.
U n i t e d States ...	0·53	557 Dollars.
Australia	0·64	241 Dollars.
Saxony ...	0·70	157 Dollars.

"it would appear that there exists some definite connection between the poverty of a country and the degree of inequality in the distribution of incomes. Our tables

³² The *Economic Journal*, March, 1926, p. 79.

³³ *Ibid.*, p. 78.

³⁴ The *Economic Journal*, September, 1926, p. 356.

have shown that the level of income of the wealthy classes of population is very nearly the same in all capitalistic countries, but, that the lower we descend in the scale of incomes, the more marked are the distinctions between the various countries."

- (6) The most interesting contribution is however the character of the secular change in the distribution of national income. It is difficult for me to summarise the generalisations in this regard as several well-known contributions of Sir Josiah Stamp, Professors Bowley, Clay, Levi, Sir Bernard Mallet, Sir Herbert Samuel, J. E. Allen and several others rush up to mind. The following summary however is sufficient though not satisfactory.

Sir Josiah Stamp.	Dr. A. L. Bowley.	Prof. Henry Clay.
References :	References :	References :
1. 'Wealth and Taxable Capacity,' pp. 40, 94, etc.	1. 'Change in Distribution, 1880-1913' p. 22, etc.	1. Distribution of Capital E. and W. (Manchester Statis. Soc., 1924-6), pp. 54-78.
2. 'Econ. Journ.,' September, 1926, p. 353.	2. Jointly with Sir J. Stamp 'National Income, 1924,' p. 39, etc.	2. 'Econ. Jour.,' March 1927, p. 3, etc.

Sir Josiah Stamp.	Dr. A. L. Bowley.	Prof. Henry Clay.
<p>1. "It is broadly true to say that the ordinary person in 1913 was four times as well-off in real commodities as the person in the corresponding social scale in 1801."</p> <p>2. "I have been able to find no positive evidence that the slope of distribution has materially changed in the past 100 years."</p> <p>3. "The potentiality of the industrial system and accumulations of savings during life, may have helped to concentrate wealth, but heavy death-duty taxation ... general taxation principles ... have been forces tending in the opposite direction."</p>	<p>1. "During 1880—1913 ... the proportions in which national income was distributed between property and work, and between the three social classes ... were unchanged."</p> <p>2. "The distribution of income between the wage-earners, other earners, and unearned income was changed slightly in favour of the earning classes ... after taking full effects of taxation, the percentage of net income going to the richer is considerably less than it was in 1911."</p>	<p>"It appears that wealth has become somewhat more widely distributed since the war ... a result probably of the present high progressive taxation ... but those who made money during war made it at the expense of persons in the same economic class, and not at the expense of the poor."</p>

Prof. Procopovitch. Reference: *Economic Journal*, March, 1926, p. 75.

"The available data with regard to the distribution of national income in advanced capitalistic countries points to a high degree of stability of that distribution both in space and in time. This fact is proof of the existence of a similar stability in the economic and social organisation of capitalist society. Any considerable modifications in it are a matter of decades ... The decreases in the incomes of the wealthiest few in the U. S. A. and in England during the world-war serves to prove that their growth in so far as it depends on the increase in the social and economic power of the particulars is neither unlimited nor irresistible and can be effectively held in check."

J. E. Allen. Reference: *J.R.S.* Vol. 83 (1920), p. 115.

"The principal change during the last five years appear to be (1) a serious diminution in the real income from pre-war level, (2) a rise in the money value of small salaries which has hardly kept pace with the depreciation of currency, and a diminishing rise in the higher grades of salaries, (3) a large increase in wages, which in the lower grades, more than keeps pace with the depreciation of the currency, (4) taxation has made for a greater equality of incomes ... On the whole, it appears that the wage-earning classes receive a larger share of the national income than they did before the war."

It must be admitted that these conclusions are largely influenced by several statistical defects, not only in the imperfectness and inaccuracy of the relevant figures, but in the differences in the methods of compilation as at different dates, and more particularly in the differing degrees by which constituent elements in them have been distorted by indirect taxation and consumers' demand. There need, however, be no doubt that as a result of direct State interference by taxation and by social relief, to both of which we are referring in greater detail in the next part, greater evenness in distribution of incomes is being aimed at in many countries at the present time.

IV

Neither the discovery of the causes of inequality, nor the determination of any index of concentration would have been any satisfactory contribution to 'distribution' in the economic world, had they not been accompanied by some real relief effected either by the employer, or by society, or by the State. They should always have been confined to the limbo of academic research had not the services and the suggestions of these persons—the economists, the statisticians, and above all the actuaries—been requisitioned for the exact formulation and the proper functioning of the proposals they made for the remedying of these defects. It is the increasing association of these learned men with the affairs of the society and the State that is probably the most outstanding event in this century, and in the subject on hand, very beneficial government interference has been secured in at least three directions: in the Government regulation of the form, amount and conditions of wages, in the provision of social relief outside commercial incomes, and in the modification in distribution secured by discriminative taxation.

On the first score, considerable literature may be quoted, and the progress of State control in the United Kingdom from the time of the Truck Acts, to the passage of the Trade Boards Act in 1909,

or the important amending Act to the same in 1928, may be reviewed, but "the distinctive innovation was the extension of regulation from the conditions of work to wages"; and collective bargaining, fixing up minimum and standard wages, ranking of industries and rationing during times of need are all now secured in a methodical manner. "The importance of this upgrading of the lower rates of wages in the last 12 or 14 years is that it attacks poverty at its main point . . . In the analysis of the immediate causes of poverty, defined by reference to a 'poverty line' of about 23s. for a family of five, which Prof. Bowley made on the basis of his sample inquiry in 1913, about two-thirds of the persons living in poverty were in that condition because the wage was too small to support the family on this minimum standard . . . the Trade Boards Act was one of the most significant reforms of the period . . . the post-war inquiry by Professor Bowley in the same places and on the same lines shows that the reform has largely succeeded in its object."³⁵

In an even more direct manner has the problem of want and poverty been attacked during the same period. "As it presented itself to social reformers in the 'eighties' and 'nineties' of the last century" writes Professor Clay,³⁶ "poverty was a problem partly of chronic want, partly of occasional misfortune for which no provision has been made, partly of inequality. There was a mass of misery due to chronic want, a sort of residuum that was left undisturbed when the increase in wealth in the nineteenth century 'surged up' through the higher income classes. There was the intermittent or occasional want due to unemployment, loss of income through accident or sickness, or death of the chief wage-earner of the family. The inequality in the distribution of wealth was an element in the problem, since all consumption standards are relative, and the ostentatious extravagance of a rich class creat-

³⁵ Prof. H. Clay, "The Authoritarian Element in Distribution," *The Economic Journal*, March, 1927, p. 8.

³⁶ *Ibid.*, p. 15.

ed a sense of poverty . . . ” Now in the second of these matters direct Government regulation is utilised by extending and diversifying what is known as ‘ public relief ’ better called ‘ civil rights.’ Under this category, in what is known as the Drage Return of Public Social Services, are included Insurance, War Pension and Old Age Pensions, Education, Reformatory and Industrial Schools, Care of Inebriates, Maternity and Child Welfare, Housing, Poor Law, Lunacy and Mental Deficiency, etc. ‘ Whatever one may think of the origins of these, it is to be recognised that no ‘ pauper taint ’ is now attached to the receipt of such incomes through civil right. In fact, the payments under the Workmen’s Compensation Acts (or even the National Health Insurance Acts) are now considered as incomes from work as being within the terms of the contract of employment . . . The extent to which such social services have operated may be imagined if we recall Prof. Clay’s figures that in 1901 (when only some seven items were included), the total State expenditure was £36 millions, in 1911 (when Old Age Pensions appear) the expenditure was £63 millions, by 1921 (when War Pensions, Health and Unemployment Insurance come in) the same was £307 millions, and from Statistical Abstract for 1925 Professors Carr-Saunders and Caradog Jones estimate it to be £316 millions. Into this matter one need not introduce such transfers from rich to poor as exist on a voluntary basis, nor voluntary provision against misfortune by the poor themselves and complicate the issue. Our present concern is to consider the effect of these on distribution, and the theorem of direct significance to us in this connection is what is called the principle of transfers, whereby we realise that there is a real transfer from the rich to the poor only when a social service is either

- (a) reserved for the poorer section of the population only, and the money for the administration of the same comes from (i) those who do not directly benefit by the scheme, and (ii) when the same comes from the

whole population compulsorily, but the rich contributing more than the poor; or

- (b) open to all, but more money is contributed by the rich than by the poor.

Now it has been established,³⁷ that National Health Insurance Scheme and Old Age Pensions come most probably under (a)—(i), and certainly within (a)—(ii); Maternity and Child Welfare Schemes when they do not come under (a)—(ii) are covered under (b), and School Medical Service under (b). Thus there is no doubt that there is (thanks to the present scheme of taxation), a real transfer, and one such as to mitigate and not aggravate the inevitable inequality in the distribution of wealth. Of course the scheme of social services is an ever-expanding one, and to-day not merely these direct causes are being indemnified, but recognition is rapidly being given to differences in even mental and physical equipment or endowment of persons at birth and so on. Everywhere it is the same idea underlying, that all these provisions mean increased efficiency, increased production and increased dividend, which as we have already seen are the *sine qua non* for the existence and the promotion of economic welfare. What however may not have been adequately recognised by all economists, is, I venture to state, that the real foundation which have secured for these grand national insurance schemes, either through mortality or morbidity, unemployment or any other risk, permanence, comprehensiveness, stability and solvency, is the implementing (not merely supplementing) contribution arising out of actuarial principles. The recent advances in this science, exploiting fully the resources and capabilities of statistical and mathematical methodology, have made it possible to accurately assess and prognosticate the chance of all types of contingency that human flesh is heir to, and to properly balance the contribution and expenditure sides of all such benefits,

³⁷ Carr-Saunders and Caradog Jones, *Social Structure of England and Wales*, p. 156.

counterbalancing as it were any adverse fluctuations in the administration or accumulation of such funds. It is not possible for me to mention here these advances in Actuarial science—involving their technical and academic implications—that have been made in Germany, America and Sweden or even in England by the Institute and the Faculty of Actuaries or by Sir A. W. Watson and his colleagues, but I may mention that though unknown and unnoticed they may be, it is they that have approved, established and materialised such contributions to social relief as pure economic theory may have done in enunciating the law of transfer above referred to.

Very often in the course of this essay reference has been made to the effects of taxation on distribution. We read,³⁸ “the German economist Wagner deserves credit as being one of the first to insist that taxation should be used to reduce inequality. His so-called ‘socio-political’ view of public finance displeases certain other high authorities, but it is logically sound and is increasingly adopted in modern practice. For a less unequal distribution is no less desirable than an increased production of wealth.” We have this same principle upheld again in 1927, that “taxation should mitigate, not aggravate, inequality in the distribution of income.”³⁹ But what are the essential theorems on the effects of taxation on distribution? Here we have a bewildering mass of literature, but as a student of mathematical economics, I will probably be pardoned if I only refer to Edgeworth⁴⁰ and to Dalton,⁴¹ and recapitulate the following four—or five—propositions:

- (1) The ‘ability to pay’ theory may be interpreted to mean ‘minimum sacrifice,’ which with the usual assumption regarding the relation between income

³⁸ Dalton, *Public Finance*, p. 105.

³⁹ Minority Report, para 72; Report of the (Colwyn) Committee on *National Debt and Taxation*.

⁴⁰ *Collected Papers* : Vol. II, p.

⁴¹ *Public Finance*, Part II.

and economic welfare, leads to progressive taxation;

- (2) A progressive tax system tends to reduce inequality of distribution, and the sharper the progression, the stronger the tendency;
- (3) A regressive tax system undoubtedly tends to increase the inequality of incomes, and so probably does also a proportional, or even a mildly progressive tax scheme;
- (4) Considerations of production make a sharp progression undesirable on a broad view of maximum social advantage, but the case for a considerable degree of progression may be considered to have been firmly established.
- (5) As public finance must be implied to include public expenditure also, the above principles are capable of 'inversion,' or a restatement, wherein regressive grant (or expenditure) corresponds to progressive tax, wherein maximum benefit corresponds to minimum sacrifice and so on.

The extent to which these have been absorbed into our administrative policy is a vast subject and it is doubtless a much accepted view that Mr. Keynes expresses on the Report of the Colwyn Committee⁴² when he says, "the most important practical conclusion to be drawn from the vindication is that we are not at the present time, beyond the limits of direct taxation as an efficient fiscal instrument, as many, not unnaturally, have supposed us to be." As for the future the Minority Report would have that "taxation should not be imposed on any whose means are not adequate to maintain a certain minimum standard of living"⁴³ and "that re-

⁴² The *Economic Journal*, June, 1927, p. 206.

⁴³ Para 73.

ductions of the food duties, and duties on entertainments and on artificial silk should take precedence of any further reduction of direct taxation."⁴⁴ Of the effect of direct taxation itself on enterprise and residence, on output of work, employment, prices and savings much clear thought indicated and supported by strict statistical considerations have been brought forward, and Mr. Keynes in the review above referred to cannot avoid exclaiming "of what incomparable value to economic study and practice of administration the continuous analysis and publication of certain statistical material by the authorities in Somerset House may be.

Two other factors which have considerably affected the distribution of incomes are (1) inheritance law and tax, and (2) public debt and redemption. "Inheritances are a principal cause of that inequality in the distribution of wealth which is so ugly a feature of our civilisation, and particularly of such inequality as bears no relation to differences in industry or social usefulness." The main ways in which State has served to mitigate the effect of this are by Legacy and Succession Duties, and more particularly by Estate Duties, all of which known as inheritance taxes being progressive in character have the desired effect in reducing inequalities. The theory that Death Duties destroy existing capital is now exploded: the Minority Report of the Colwyn Committee bring this out very convincingly, and the Inland Revenue Statistics have similarly negatived Mr. McKenna's contention that private businesses were likely to be adversely affected. Indeed, the question to-day is how effectively to tax inheritances, although both Prof. Rignano's proposal and Dr. Dalton's modifications are not acceptable to the majority of the Colwyn Committee. Sir Josiah Stamp has in a recent Paper⁴⁵ thrown some unexpected light on this question when he says "the more do we survey the biological field the less do we find justification for inheritance of wealth by others than

⁴⁴ Para 75.

⁴⁵ The *Economic Journal*, September, 1926, p. 339.

direct descendants or dependents," or again "the sense of 'social injustice' is directed against the inequality of wealth, of which inequality through inheritance is not now the larger part . . . I think it probable that, through the inequalities due to the system in which inheritance has a part, the average man has a slightly smaller proportionate share of the aggregate than he would have had if there would have been no inheritance system, but a substantially larger absolute amount, because he has a larger aggregate or better standard of life than he would have under a system which would have no such aid to accumulation. Whether under these circumstances he is justified in having a sense of injustice, whether it is better for human welfare to have a low standard without envy, or a higher one with envy, is a matter lying beyond economics in the sphere of social psychology and philosophy." He has considered⁴⁶ the practical aspects of his thesis that "the principles upon which death-duty taxation is at present levied might be improved" and that "a less repressive method would be to raise at lower duties on first succession and the balance at higher rates on succeeding successions." He is also engaged, through the British Association, on an inquiry "to explore the statistical aspects of inheritance so as to obtain a clue to its importance as a cause of inequality of wealth."

The question of public debt has, owing to the War, assumed considerable proportions to-day, and it is being discussed on many sides—internal *vs.* external debt; fixed interest, price level and security values; capitalist or socialist State; repudiation or repayment; capital levy or sinking fund or annuity or anticipated death duties; and so on. We are only concerned here with the question of public debt and its reaction on distribution, and probably also of the effect of any method of liquidation on distribution. The facts of the case may be stated at once in the words of the Minority of the Colwyn Committee.⁴⁷ "It is beyond question

⁴⁶ *J.R.S.S.*, March, 1927.

⁴⁷ Para 44.

that the internal debt involves on balance a transfer of wealth such as aggravates the existing inequality in the distribution of incomes and tends to increase the proportion of the national income which finds its way into the hands of the non-producers." This finding on facts so handily supplied to that Committee by Mr. W. T. Layton is unimpeachable, but it was inevitable on *a priori* grounds also, as, in the case of nearly all modern communities, owing to large inequalities in the original distribution, public securities are held mainly by the wealthier classes. But it has not been sufficiently held in check by taxation, for as Dalton points out⁴⁸ "the progressiveness of the tax system is not likely to be greater than the regressiveness of the grants paid, in the form of interest, to the holders of the public securities," and therefore the real burden of the debt continues. Again, it is now being realised to our cost, that this burden is heavier, not only in proportion to the size of the debt, but in terms of the rapidity of the fall in the price level and the rate of interest. Hence this quickened awakening for repayment as repudiation is both unthinkable and economically unsound also. The proposals for the repayment through capital levy had always been 'in the air,' and although the Bolshevik Russian Government was the first to impose and the Royal Decree of Italy followed it in November, 1919, we are told that "Italian students were drawn into the discussion of a levy on capital by publications which appeared in foreign countries, especially in England. The investigations made by Lawrence, Pigou, Arnold, and Hook—all of them favourable for the levy found a ready echo in Italy" writes the Italian Professor ('Gini').⁴⁹ Whether it was rightly rejected by the Parliaments of France and England or otherwise, it is our business here only to consider the probable effects on distribution. "A levy on a highly progressive scale would in the first place reduce inequalities of wealth; it would not destroy real wealth, but it would

⁴⁸ *Public Finance*, p. 192.

⁴⁹ *The Economic Journal*, September, 1920, p. 289.

decrease the share of the levy-paying classes and increase the share of the classes not paying the levy." But 'the equalisation of wealth' acts once only, and may be more than offset by its effects on savings, production, etc., or more directly by the use that Government puts to the consequent savings in interest. These considerations, it will be noticed, lead us back to the theorems of 'civil rights' and public expenditure already referred to, and we need not consider them here again. There are several other 'brilliant' methods suggested for liquidating the public debt, and the Colwyn Committee "turn every single one of the bright ideas suggested to them" by Mr. Keynes (who so complains) and "by others" although Mr. Keynes himself concedes "quite likely they are right to do so." It is only the sinking fund plan that has appealed to that Committee, and as for its effects on distribution, it is interesting to read Mr. Keynes' review: "A *posteriori* it seems the capitalist would favour a heavy sinking fund, partly out of his ingrained habits of 'prudence' and of preferring the possibility of future benefits to the certainty of present ones, and partly out of a feeling that a stiff sinking fund at any rate locks away for the time being the budgetary resources from being spent on the doubtful boons of the so-called social reforms, whilst the socialist also favours one, partly because he looks forward for using later on the budgetary resources which will be thus released, and partly because, by mere confusion of thought, he thinks that £1,000,000 daily interest on the National Debt is in some sense 'paid away to the rich' in a way in which it would not be if the debt is gradually paid off. Both parties are reinforced by the good and the virtuous, who, out of false analogy with private debts, "feels that it must always be a good thing to pay off a debt"; so that the economist, who asks in an intellectual spirit what after all is the object, is left lonely."⁵⁰ But the economist does not stand neglected; he has summoned the aid of statistical and mathematical talent that a

⁵⁰ The *Economic Journal*, June, 1927, pp. 208-9.

Mr. W. H. Coates, a Mr. W. T. Layton, a Sir Herbert Samuel among several others with their ingenious indices and correlations have enabled the Report of the Colwyn Committee to so effectively substantiate the findings and their conclusions and have so much enhanced the reputation of the economist at the present day. Indeed this aspect of statistical verification and empirical extension was held up for the present economist by no less an authority than Sir Josiah Stamp in his recent Sydney Ball lecture, and armed with such powers the economist of to-day has prevailed even upon the Parliamentary mind. And what has the 'authoritarian element' done to distribution? Professor Clay answers: "Without interfering with, or abrogating the essential elements of freedom in the policy of *laissez faire*, and without assuming the awkward and dangerous responsibility for fixing up prices and incomes, Parliament has nevertheless interfered materially with the distribution of wealth and has done much to secure a better distribution and has done more probably in the present century to solve the problem of poverty than any previous generation of any other country has been able to do."

THE THEORY OF BARTER AND THAT OF BUYING AND SELLING

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SUMMARY

Marshall draws a distinction between the theory of buying and selling and that of barter. While in buying and selling there is a determinate rate of final exchange, in barter there is an uncertainty in it. This uncertainty in the final rate of exchange in barter is, according to Marshall, due to the variation in the marginal utility of both the commodities in exchange. It does not exist in buying and selling, because here the marginal utility of one of the two commodities exchanged, that is, money, is taken to be constant.

Prof. Loria criticises this view of Marshall that it is only in some cases of barter that this uncertainty in the equilibrium rate exists, and that this has nothing to do with the character of the marginal utility of the commodities exchanged.¹ He divides the problem into three parts:

- (1) when barter takes place between two monopoly products,
- (2) when it takes place between a monopoly and competitive product, and
- (3) when it takes place between two competitive products.

In the first case, there is no determinate rate of final exchange. In the second, the equilibrium rate will be unique and determinate, for here the monopolist will dictate the terms, and value will be fixed at the rate which will bring the maximum revenue to him. In the third case also, there will be a determinate

¹ The Economic Journal, 1906.

rate of final exchange because it is only at one possible rate that demand and supply will equate, and value will be established at that rate.

Marshall bases his distinction on the character of the marginal utility of the commodities. It must be admitted that if the marginal utility of both the commodities fluctuates, there cannot be a determinate rate of equilibrium; for in such a case, there is no fixed and definite demand schedule or supply schedule. Nor there is any gradation in them.

The whole question then turns on one thing: whether the marginal utility of money can be taken as constant, and whether that of the second commodity in barter cannot be taken as such. The marginal utility of money is taken to be constant, because money does not satisfy any particular want, but wants in general. When a person produces a commodity and procures by exchange various other commodities, it constitutes like money general purchasing power at his command, and its marginal utility may be taken as fairly constant. The barter theory of international trade in which there is a determinate rate of exchange is based on such an assumption. The example taken by Marshall to prove his proposition is exceptional and does not represent normal transactions in barter.

We are unable to agree with the view of Prof. Loria. It should be admitted that if there is to be a distinction between barter and buying and selling, regarding the nature of the equilibrium, it will depend on the character of the marginal utility of the commodities exchanged. The fact that in competitive barter demand and supply equate only at one rate, implies that there is a fixed and definite demand schedule and a similar supply schedule. It has been already stated that it is possible only on the assumption that the marginal utility of one of the two commodities exchanged is constant. The uncertainty in equilibrium in the case of bilateral monopoly is not peculiar to barter, but may also be found in buying and selling. If there is a monopoly of production as well as one of consumption, with regard to any commodity in buying and selling, there is no determinate rate at which it will be sold. We thus come to the conclusion that there is no fundamental distinction between the theory of barter and that of buying and selling, regarding the nature of the equilibrium rate.

Marshall draws a distinction between the theory of buying and selling and that barter.² While in buying and selling there is a determinate rate of final exchange, in barter there is an uncertainty in this final rate; and though in this latter case there is an equilibrium, it is only an accidental equilibrium and not what Marshall calls 'the equilibrium.' In the direct exchange of commodities for commodities, the final rate of exchange is not necessarily one and the same, but depends, among other things, on the rate at which transaction begins. If the initial rate is favourable to one party, the closing rate also will in all probability be favourable to it. With a different initial rate the closing rate also will be different.

In order to prove this uncertainty in the character of the equilibrium in barter, Marshall takes the case of two persons A and B, exchanging apples for nuts. A has got 20 apples and B has got 100 nuts. To A, the initial utility of 3 nuts is equal to the marginal utility of one apple, while to B, the initial utility of one apple is the same as the marginal utility of 12 nuts. Exchange may begin anywhere between these two rates; but as it goes on, the comparative utilities change, and the area of profitable exchange narrows down, until when it finally disappears, the transactions also close. Suppose A at the outset induces B to believe that he is not very keen on getting nuts, and B agrees to exchange 40 nuts for 4 apples. A's eagerness to have nuts will now be less than before, while the marginal utility of apples to him will be higher. On the other hand, the eagerness of B for apples will be lessened, while the marginal utility of nuts to him will be higher. The rate 4:40 gives by far the largest part of the gains to A, and very little to B who is, therefore, not willing to do any more business at that rate. So A tempts him to make further exchanges by offering a better rate. The next instalment takes place in the exchange of 2 apples for 17 nuts,

and afterwards, one more for eight. After this no further trade is possible, because B will want one apple for less than 8 nuts, while A will not accept any such rate. On the whole, 7 apples are exchanged for 65 nuts, and the final rate of exchange is one to eight.

On the other hand, if B is more skilful of the two in bargaining, the starting rate will give the bulk of the gains to him, and he will induce A to make further exchanges by offering better rates. Suppose the exchanges take place in the following order:—

6 apples for 15 nuts³

2 apples for 7 nuts

2 apples for 8 nuts

2 apples for 9 nuts

1 apple for 5 nuts.

Altogether, 13 apples are exchanged for 44 nuts, and here the final rate is one apple for five nuts. In each case an equilibrium is reached, but it is an accidental equilibrium, and the final rate is different in the two cases.

Marshall then proceeds to show that this will also take place in the case of two groups of persons, one having apples, and the other nuts, meeting each other for barter. The apple-sellers are all in the position of A, and the nut-sellers in that of B. The uncertainty in the final rate of exchange, which is present in the barter between A and B, is also found to be present in the barter between the members of these two groups. This uncertainty in the equilibrium rate is due to the fact that in barter the marginal utility of both the commodities fluctuates; whereas in buying and selling the marginal utility of money, one of the two commodities exchanged, is supposed to be constant.

³ It will be noticed that this rate does not bring any gain to A on the comparative utilities assumed before. The example is taken from Marshall's book.

Prof. Loria in an interesting article in the *Economic Journal*, 1906, subjects this view of Marshall to a searching analysis, and comes to the conclusion that it is only in some cases of barter that this uncertainty in the equilibrium rate exists, and that this has nothing to do with the character of the marginal utility of the two commodities exchanged. He divides the problem into three parts: (i) when barter takes place between two monopoly products, (ii) when it takes place between a monopoly and a competitive product, and (iii) when it takes place between two competitive products. In the case of trade between two monopoly products, he says that Marshall's position is unassailable. In the case of barter between a monopoly and a competitive product, there will be a definite final rate of exchange. It is that rate which will bring the monopolist his maximum gains. Here the monopolist will dictate his terms, and any particular competitive producer will not be able to contest the monopolist's power, because of the fact that he cannot by himself limit the supply of the commodity which he only partly produces. If he refuses to sell his product to the monopolist on the terms wanted by the latter, there will be others ready to do it.

Lastly, in the case of barter between two competitive products, the final rate of exchange is unique and determinate. There is only one possible rate at which demand and supply will equate, and it is at this rate that equilibrium will take place. The equation of demand and supply cannot take place at any other rate, since it will either increase the demand and decrease the supply, or decrease the demand and increase the supply. Thus, according to Prof. Loria, there is a difference between the theory of barter and that of buying and selling, though to a much less extent, and this difference is not connected in any way with the character of the final utility of the two commodities exchanged, but consists in the fact that barter may take place between two kinds of monopoly products, while buying and selling necessarily take place between a commodity which may

or may not be monopolised and money which is obtained under conditions of free competition.

Let us now examine the views stated above. Marshall bases his distinction on the character of the marginal utility of the commodities exchanged. It must be admitted that, if the marginal utility of both the commodities fluctuates, there cannot be a definite and determinate equilibrium. The theory of stable equilibrium of demand and supply is based on certain statical assumptions with regard to a demand schedule and a supply schedule. These assumptions can be made when one of the commodities in exchange possesses a constant marginal utility, but cannot be made, when the marginal utility of both is variable. Demand and supply relate to, and depend on, a price which may vary in two ways: by a change in the magnitude, or by a change in the utility or importance, of the commodity in terms of which the price is paid or received. When the utility is constant, at a given magnitude of the price, demand and supply remain unchanged, other things being the same. When the utility varies, they will change, even though there is no alteration in the magnitude of the price. Thus B may like to have the 10th apple for 6 nuts when he has got 50 nuts in his stock, but may refuse to do so when his stock of nuts is only 30. Six nuts involve a larger sacrifice, when B has got only thirty, than when he has got fifty nuts. Similarly, A may be willing to exchange the 10th apple for six nuts, when he has already got thirty nuts, but may be unwilling to do so when his stock of nuts has already come up to fifty. This fluctuation in the quantity demanded or offered for sale without any alteration in the magnitude of the price is not possible in buying and selling, where it is assumed that the marginal utility of money is constant. Here a given money price implies a given sacrifice or reward, and, consequently, other things being the same, the quantity demanded or supplied remains also unchanged. If a person is willing to buy the 10th apple for one anna, he will buy it at that price irrespective of the

total price he has already paid for the preceding nine apples. The seller who is ready to sell the 10th apple at one anna will always do it, irrespective of the total price he has already received for the preceding nine apples. In such a case the transactions necessarily close with the transfer of the 10th apple at the price, one anna.

The whole question then turns on one thing: whether the marginal utility of money can be taken as constant and whether that of the second commodity in barter cannot be taken as such. That money does not possess an absolutely constant marginal utility, will not be denied by any one. At the same time it is a fact that, of all commodities, money has got the least fluctuating marginal utility. The reason for this is that money does not directly satisfy any particular human want, but is the means of satisfying our wants in general. It is also a characteristic of human wants that any particular one of them may be quickly satisfied, but wants in general are not so easily satiable. As soon as one particular want is satisfied, another asserts itself and takes its place. If a commodity satisfies only a single want, its marginal utility will diminish at a rapid rate with an increase in its stock. Since money satisfies our wants in general, its marginal utility will fall very slowly when its stock increases. In the next place, the quantity of money spent on any particular want is only a small part of our total expenses, and, therefore, changes in the price of a particular commodity does not, as a rule, appreciably affect our general purchasing power. It is on these grounds that we take the marginal utility of money as constant.

When a person produces a commodity and procures by exchange various other commodities which he consumes, we shall not be very wrong if we think that the commodity in the production of which he specialises, constitutes like money the general purchasing power at his command. He may himself consume a part of it; but, apart from this, the commodity satisfies his wants in general. It is thus clear that in such a case of specialisation

supposed to have a given stock of apples and nuts respectively. These commodities are not normally produced by them and do not constitute their general purchasing power. Had it been so, they would have possessed with regard to their producers the same virtue as that of money, and would not have a varying marginal utility. A has got a fixed stock of 20 apples, and B that of 100 nuts. As exchanges are made, the marginal utility of apples to A and that of nuts to B perceptively increase, and, therefore, the demand price for any particular unit of a commodity does not remain constant but depends on this varying marginal utility of the commodity in terms of which that price is paid.

Even in his next illustration where Marshall extends his problem to a group of persons, half of whom are in the position of A, and the other half in that of B, the case is not typical of normal production and exchange. It is only the number of persons engaged in barter that increases; but the supply of the commodity is equally fixed and rigid, so that the marginal utility of both the commodities in exchange fluctuates. There cannot, for this reason, be a unique and determinate equilibrium.

Let us now examine the views of Prof. Loria. We have seen that in his opinion the distinction between barter and buying and selling does not relate to the marginal utility of the commodities exchanged. It depends on the fact that in barter trade may take place between two kinds of monopoly products, whereas in buying and selling this is not possible. We are unable to agree with Prof. Loria on this view. On the other hand, we are inclined to believe that if there is to be any distinction regarding the nature of the equilibrium, it will depend on the character of the marginal utility of the commodities. Prof. Loria says that in competitive barter there is only one value and one equilibrium, because if demand and supply equate at any particular rate, they cannot equate at any other. When the price rises, the demand will fall, but supply will increase. It is for this inability of restricting the supply artificially in competitive barter that there cannot take

place the equation of demand and supply at any other rate. But this presupposes a constant marginal utility of one of the two commodities exchanged. The supply of a commodity will increase when the rate becomes higher, but if the marginal utility of the commodity supplied rises in the meantime, the supply, instead of increasing, may even diminish, so that an equation of demand and supply may take place at some other rate also.

This difficulty of artificially restricting the supply, in order to bring about an equation of demand and supply, does not exist in monopolistic production, and, therefore, where both the commodities in exchange are monopoly products, equation of demand and supply may take place at more than one rate. Since it is only in barter that exchange between two monopoly products is possible, Prof. Loria says that it is only here that a plurality of value arises. If A is the monopolistic producer of apples, and B that of nuts, then, in the exchange of apples and nuts, there will not necessarily be any definite equilibrium. Each party can, in such a case, artificially restrict the supply of its commodity with the object of getting the other commodity at a favourable rate. Thus A may find it profitable to restrict the supply of apples for the reason that his eagerness to make further exchanges may result in such an alteration in the rate that, for a slight increase in the total number of nuts received by him, he has to give a much larger number of apples, so that, on the whole, he is a loser by such a change. For the same reason, B also is likely to restrict his supply, when there is a possibility of his gains being increased by such action.

This sort of uncertainty in the rate of equilibrium is possible not only in barter, but also in money economy under monopolistic conditions of production and consumption. Suppose, there is, with regard to a particular commodity, a monopoly of production as well as a monopoly of consumption. In such a case, even if money is used as the medium of exchange, there is no definite rate of final exchange. Each party is in a strategic position in bargain-

ing. The producer knows that he alone controls the supply, and the other party, if it wants to buy, must come to him and accept his terms. On the other hand, the consumer knows that he alone controls the demand, and the producer, in selling the commodity, must come to him and accept his terms. The producer will try to have the maximum monopoly gain, while the consumer will try to have the maximum consumer's surplus. There is no fixed and definite demand or supply schedule. Nor there is any gradation in them. The consumer, who holds a monopoly of consumption, can regulate the demand with the object of obtaining the commodity at a favourable rate. On the other hand, the producer who holds the monopoly of production, can regulate the supply with the object of deriving a net monopoly revenue. There is thus no single and definite equilibrium in such a case. This sort of a strategic action is not possible in buying and selling under competition, for the reason that any individual action will not appreciably modify the total demand and total supply in the market, and, therefore, will not be effective in bringing about a favourable change in price. The only result of such action will be that either the individual must soon yield and accept the price ruling in the market, or go without any business at all.

Our conclusion is that there is really no distinction between the theory of barter and that of buying and selling. The introduction of money as the medium of exchange does not alter the fundamental character of the equilibrium that takes place between demand and supply. Marshall's distinction is based on some cases which are rather exceptional and do not represent normal transactions in barter. It must be admitted that, if the marginal utility of both the commodities in exchange fluctuates, there cannot be what Marshall calls 'the equilibrium.' As a matter of fact, in normal transactions in barter, we can assume the marginal utility of one of the two commodities as constant to its producer, and, therefore, even here the equilibrium is not accidental, but unique and determinate. We agree with Prof.

Loria when he says that between competitive barter and competitive buying and selling there is no distinction. But he does not seem to attach sufficient importance to the question of marginal utility in the theory of value. The reason why there is no difference between competitive buying and selling and competitive barter is that there is no difference between the two cases regarding the marginal utility of the commodities exchanged. Prof. Loria goes on to introduce a distinction between barter and buying and selling, relating to the nature of the supply of the commodities exchanged, namely whether it is monopolistic or competitive. But we have seen that uncertainty in equilibrium under conditions of bilateral monopoly is present not only in direct exchanges, but also where money is introduced as the medium. We are, therefore, unable to maintain the distinction even in this restricted sense.

KEYNES AND MONETARY REFORM

BY

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SUMMARY

In this little essay there is no attempt to estimate the contributions of the world-famous author Prof. J. M. Keynes to the economic doctrines of the modern day. An endeavour is made to make a keen and penetrating analysis of his doctrine of 'managed currency.' The inter-relationship between the different planks of his scheme are pointed out and the similarity between his technique of management and that adopted by the new gold standard countries is pointed out. The gold problem confronts all nations and in all directions. If any endeavour is made to study this problem free from prejudice inborn or created through traditional teaching and its accepted shibboleths, the conclusions of Prof. Keynes seem justifiable. Whether the world would in future adopt this man-made scheme depends purely on the man-made remedies adopted to perfect the new gold standard as a satisfactory currency standard. If any nation is to be rid of the evils of bad trade, industrial depression, widespread unemployment and national misery the conscious control of the new gold standard on similar lines advocated by Prof. J. M. Keynes would seem to be inevitable. If the significance of the law of national well-being is properly grasped Indian people must realise the issue at stake. There should be no further ignoring, misunderstanding or transgressing this law of national well-being. If the money or currency or credit problem is solved satisfactorily all other difficulties in the path of national greatness would be set aside.

This essay is not a biographical sketch but an analytical survey of the policy outlined by Prof. Keynes—the eminent English Economist. His contributions to economic thought are indeed numerous but it would take greater space than can be allowed within the conventional limits of our Conference to thoroughly discuss them. So the most important of his suggestions towards the solution of the currency problem and his able championship of the ‘managed non-metallic standard’ is alone taken into account. Although a believer in the efficacy of gold reserve for certain purposes, Keynes is the first distinguished critic who enjoys the credit of battering the first breaches in the walls of the automatic gold standard. Though the return of all countries to the gold standard has shelved further discussion of the conception of scientifically regulated paper standard, still the technique of management necessary to secure monetary stability under a non-metallic standard is being now applied towards managing the resurrected gold standard system.

Keystone of the Arch.

The scheme of currency reform prepared by Prof. Keynes is not now a matter of scientific interest but has become familiar to practical businessmen, the bankers and other members of society. As it contains many original meritorious features of its own which deserve special consideration an intensive study of this scheme is taken up. Though it has been discarded by almost all the leading countries, still it has succeeded in exerting its influence on the modern gold standard countries to such an extent that it is now proposed to consciously control or manage the new gold standard with a view to remedy its evils or weaknesses. The principles embodied in his scheme form the model of control adopted by the present-day gold standard countries.

Keynes-Dilemma.

The genesis of his scheme was in the post-war years when the belligerent nations were fighting keenly about the importance

of price stability or the exchange stability. It was in these days when the issue between price stability *versus* exchange stability was being fought, that Keynes sponsored his famous scheme which has won for him world recognition and reputation.

Its Salient Features.

An understanding of the salient features of this scheme is an essential preliminary before we can hope to understand the extent of its influence on modern world and thought or realise its significance as an important contribution to the literature of monetary theory.

The first feature is the declaration of the importance of stability of internal prices, i.e., the sole purpose is to give currency a fixed value in terms of commodities. Though stability of exchange is an important facility, the sole objective of conscious currency control should be in the direction of stable internal prices. Stability in economic life which means roughly the prevention of cyclical unemployment and injustice to debtors and creditors and income-owning classes over short as well as long periods is the chief advantage of this ideal.

Secondly, the conscious consistent guidance of the non-metallic standard is to be conducted according to the economic data furnished chiefly by the volume of credit, etc. The note-issue would be limited by the requirements of the stable price-level.

Thirdly, the agents of control would be the Central Bank and the Treasury. The Central Bank's means of control are to be changes in the discount rate and open market operations. The Treasury would have to supplement these forces now and then in order to realise the stable price-level policy.

Fourthly, the volume of credit can be controlled and made to vary with the requirements of the country. "The tendency of today is to watch and to control the creation of credit and to let the creation of currency follow suit rather than as formerly to watch and to control the creation of currency and to let the

creation of credit to follow suit," says Keynes.¹ Thus the creation of credit would no longer be with reference to gold reserve of the Central Bank but with reference to the requirements of the people who would be the sole gainers by the maintenance of a stable price-level.

Fifthly, while gold is deposed from its position of Governor in the banking system it is detained as an ultimate safeguard and a reserve for sudden requirements.² Short-period fluctuations in exchange rates are detrimental to trade and these can be eliminated by using gold as the means of paying international indebtedness. The Central Bank would buy and sell gold at stated prices thus tending to keep exchange rates steady within these limits as would be the case in the matter of specie points under a gold standard. These buying and selling prices of gold would be constantly altered to follow the movements of exchange rates. Thus relatively permanent movement of exchange rates would be tolerated while the disastrous short-period fluctuations of exchange rates are deprived of their actual sting.

Another important service of his which forms of course the basis of his programme is the shattering of the time-honoured belief that "currency has a resistance of its own against the influence of inflation." That currency will not automatically recover or revert to its old value and is bound to sink into a bottomless abyss unless the primary causes influencing the course of inflation are checked, is very ably taught to us. Gustav Cassel who refers to the same notion considers it as the attribute of passivity and the "value of currency is completely passive to the influence of continued creation of fresh purchasing power in the form of nominal means of payment."³

¹ Keynes, "Tract on Monetary Reform," p. 200.

² *Ibid.*, p. 213.

³ See Gustav Cassel, 'Post-War Monetary Stabilisation,' Lecture on Inflation and Deflation.

Sixthly, no gold coin is essential for his scheme and the Mint would be freed from the obligatory acceptance of gold offered to it.

Seventhly, any nation can immediately take it up and pursue this policy undisturbed. International co-operation would however make the scheme more efficacious and the world would be saved from the tyranny of gold output.

Eighthly, the formation of an organisation for the forward exchange contracts to remove the evils of fluctuating exchanges is another important innovation of his.

The New Gold Standard.

The important countries of the world have resumed the gold standard with slight variation here and there to suit local conditions. Stability of exchange has thus ostensibly triumphed but everywhere in England as well as in the United States of America attempts are made to regulate the new gold standard exactly in much the same manner as proposed by J. M. Keynes. Credit contraction or expansion is not based on mere gold movements alone. They are taking place solely with reference to the stable price-level requirements alone. Thus the most important of the modern nations are aiming at the realisation of relatively stable exchanges as well as comparatively stable internal prices at the same time.

Some Features Adopted.

First, the Central Bank management on which Mr. Keynes relies is the very method adopted for the realisation of stabilised prices. The changes in the discount rate, moral suasion and the open market policy or the absorption of deposits from the money market are some of the devices adopted by the modern central banks who are playing an actively important part in the determination of the volume of credit than they ever did before the formulation of this theory. The attainment of a stable price level is the goal adopted and the price-level is one of the important economic data guiding the discount policy of the modern Central Banks. The

repudiation of the 'Strong Bill' does not mean that the idea of stabilisation of prices is forsaken altogether. The world being on the dollar⁴ standard and the revalorisation of gold being conducted by it, it is impossible for the United States of America to give up her attempts towards stabilisation of prices.

Secondly, much faith is lost in the gold reserve requirements of the Central Banks. Having gained belief in the doctrine that bank notes can be safely issued on the specific pledge of commercial or other collateral paper the gold reserve holdings are treated with scant courtesy and in the near future when gold becomes scarce as a result of the dying assets of the mines the present-day legal requirements would easily be scaled down without any injury to the credit prestige of the Central Banks. Thus Mr. J. M. Keynes may be regarded as the propounder of the new doctrine of Central Bank reserves. Just at present the Bank of England is putting it into practice and although the gold reserve is much below the requirements considered essential by the Cunliffe Committee still there has been no raising of the Bank rate to protect the reserve. As Prof. Pigou would term it, it is not the reserve discount policy that is being pursued.

But the conception of Prof. Keynes that gold need not regulate and stabilise the supply of other currency and credit media of exchange has not been tacitly accepted as yet. The real meaning of the present-day gold standard is after all the maintenance of parity of the media of exchange, viz., subsidiary coin, paper currency and bank credit with gold.

Finally the view that the gold fiat standard is far superior to managed paper-standard is gaining ground and it is likely to oust this managed paper currency doctrine though it is based on the same faith and technique as the latter. The idea of fiat or conscious control has become an accepted article of faith and has paved

⁴ See Right Hon'ble J. MacKenna, "Post-War Banking Policy"; also Gustav Cassel, Lecture on the new Gold standard included in his *Post-War Monetary Stabilisation*.

the way to the modern ideal of artificial but scientific price control without sacrificing stability of exchange or rejecting the gold standard or involving international agreements between nations. Considering the incontestable superiority of commodity money to paper money the doctrine of gold fiat money would easily sway the minds of the people. Even in the mechanism of control which gold fiat money countries have adopted many of the arrangements of Prof. Keynes are accepted. Although the stabilisation of prices the first article of faith on which Prof. Keynes pins his faith is only one among many other important data. Even Keynes does not forget the necessity of a complete set of data to obtain stability of economic life, which after all ought to be the aim of all monetary reformers. With the evolution of time there would be improvement in the means or mechanism of international control of the standard in the near future. As modern society develops into a credit society credit becomes easily susceptible of control and the objects of the monetary reformer can be easily attained.

Another signal contribution of his is the difference he has drawn between money, currency and credit. This faith is the corner-stone of all monetary reformers' schemes. Without the relativity of money, currency and credit, it is impossible to believe that all of them perform definitely the function of money. It may be true that each of the three may possess special qualities of its own. These would not deter the reformers from propounding their schemes.

Still another feature adopted from Prof. Keynes' plan is this. The Central Bank's buying and selling of gold at a fixed price is one of the important features of managed currency of Keynes. This was with reference to exchange measures. But in the modern gold bullion standard we find the same feature and it is tacitly stated that this coinless gold standard is still a gold standard for the bank has the obligation to buy and sell gold. Mere payment of the bank notes or other media of exchange into gold coin is no longer essential for possessing a gold standard. The essence of

the gold bullion standard is to keep the money unit in fixed parity with gold bullion though it might be held at home or abroad. If gold is held abroad the gold exchange standard is supposed to be in existence in that particular country. Both Germany in 1924 and England in 1925, have adopted the new gold standard respectively. Since then all other countries which have reverted to the gold standard have adopted this new gold standard the most important feature of which is the conscious and consistent guidance of currency and credit in the wider interests of the country. Thus the conception of an automatic gold standard has been discarded. If a relative stabilisation of the world price-level is to be secured and if the requirements of the economic progress of the world are to be taken into account an intelligently and courageously managed gold standard seems to be an admitted necessity.

Can there be Paper Standard in the Future?

Though a prophecy in the field of monetary economics is absolutely mischievous and is liable to be miscarried still there is the possibility of a return to the non-metallic managed currency ideal. The abolition of gold as a monetary standard is quite within the limits of possibility if all attempts to regulate and stabilise the value of gold fail to achieve the object. But the programme of stabilisation of gold is bound to succeed if international co-operation foreshadowed on broad lines by the Genoa Financial Conference of 1922 is forthcoming. Already a part of this programme is fulfilled. England, France and America have emerged as the custodians of the gold stock and these can be considered as the international 'gold centres.' It is the second half of the programme that has to be fulfilled. This part of the programme requires further economy of gold and reduction of gold reserve requirements in the non-gold centres. Though by giving up gold coin circulation there has been some amount of economy still the reserve requirements have not been reduced. If this important part of the plan is achieved and if America is financially strong

enough to carry out the revalorisation of gold that it has been pursuing now there is no reason to be unduly pessimistic about the future of the new gold standard. The necessity to reject it might not be felt. So the scheme of scientifically regulated non-metallic currency would fail to appeal to those nations who have in the meantime more or less perfected the new gold standard.

His services.

But he has drawn attention to the possibility of a scientifically managed non-metallic currency. No speculative theorist even would now disbelieve the possibility of securing a stable monetary system. Even the most rational apostles of economic freedom would not question the feasibility of regulating paper currency as a real standard possessing the most essential qualities of sound money.

What has India to Learn from His Scheme?

Prof. Keynes has done invaluable service in laying down certain fundamental truths which ought to be borne by all nations. If the final aim of any nation is to create a healthy rising generation, sound in mind as well as in spirit, the creation of money, currency or credit must be indispensable and must suit the requirements of the expanding population and their growing efforts to secure employment and expand trade. This is the fundamental principle that India has to accept and if the exploitation of the agriculturists by the money-lenders has to be given up it can only be accomplished by developing the credit structure in such a manner that the wider interests of the country alone guide the deliberations of the credit manufacturers. The interests of moneyed classes ought not to rule or govern the creation of credit. If a nationally-managed Central Bank of Issue responsible to a representative body were to be created and if it were to wisely control the credit policy affording equal opportunity to all the divergent interests of our society the possibility of securing steadily

increasing prosperity would become an accomplished fact. Such a policy alone can prevent the country from ruin and further impoverishment and poisonous discontent bred in the minds of all unemployed people. Now that a gold standard is about to be introduced and her banking system reorganised the necessity of managing it in the wider interests of the country instead of in the interests of the moneyed classes alone has to be grasped. A really representative body of the principal national interests wherein the Native States are also represented must settle this currency policy. This is what the Central Banking Committee ought to realise as a desirable consummation worth striving for.

Perfection of the Credit Structure.

The Central Banking Committee has to make arrangements towards the perfection of the credit instruments and make the present-day society a credit society. A rapid transformation of the monetary habits of the illiterate people is indeed difficult. But as in South Africa attempts have to be made to develop the credit instruments and perfect the machinery of credit control by organising the credit structure in such a way as to control even the "preponderatingly large amount of financial and commercial transactions of the bazaar dealers in credit." The Bank rate must be made the king with full controlling power and voice in the credit structure of the country; with a Central Bank effectively controlling credit as well as currency in the organised money market as well as the loosely organised bazaar and with credit instruments supplanting the modern cash media and the cash credit system giving way to the practice of drawing bills, the policy of credit control is bound to succeed. The co-ordination of the work of the different members of the money market would be accomplished only under the aegis of a true central bank. If all monetary and exchange business even in the moffusil is to be conducted by organised banks or bankers and credit instruments created by them the financial life of the people can be said to be based on credit

and the society can be considered as a credit society. Under such circumstances the sound management of credit can confer blessing on society. Excess or shortage of credit or unwise creation of credit beyond the financial capacity of the trader-borrower or a misuse of credit or the present-day absolute dependence of credit on currency would become mere anachronisms in a credit society where credit creation is controlled by a nationally-managed Central Bank with the sole view of creating the economic prosperity of the country.

OPTIMUM AND OVER-POPULATION

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Though the study of animal numbers is now in an early stage yet it throws a flood of light on the conditions of optimum density of human populations. It appears that amongst various animals there is a certain suitable optimum density which is determined mainly by their size, food habits and other characteristics and the presence of their usual enemies. Where there are no checks from the limitation of food-supply or from enemies as in artificial populations studied in the laboratory there is a certain optimum density which when over-stepped leads to a decrease of the span of life. Among certain protozoa it has been found that if there are too few individuals in a culture they do not live so successfully, and this is also said to be true of cells growing in tissue-cultures. Again, it has been found that the minimum density is not the optimum density for a population of the fruit-fly *Drosophila* growing in the laboratory. Professor Pearl found by his work with colonies of food-flies grown in an experimental universe, certain fundamental principles which have a very important bearing upon the growth of human populations. He discovered that there is an optimum density of population of these organisms as regards *length of life* and that density actually decreases fecundity. There is a profound and regular change in the rate of reproduction of these flies, under the conditions of these

experiments, with increasing density of population. The number of progeny produced per female per day declines as density increases, at first extremely, rapidly and then more and more slowly at higher densities. After a density of fifty-five flies per one ounce bottle is passed, the mean duration of life steadily decreases as density of population increases. Another way of putting the same thing is to say that the death rates in these experiments increased with increasing density of population after density fifty-five had been passed. The figures for mean duration of life are necessarily determined by the values of the death rates at ages. Other experiments have demonstrated that with extremely high densities of population, the mean duration of life (or equally the death-rates) approach an asymptote. In densities below fifty-five, after a relatively small initial rise, there is little change in mean duration of life (or death-rates) with small increases in density. Some other sociological experiments on artificial population, viz., on bacterial populations were conducted previously by Professor Oscar Bail and gave similar interesting results. Different kinds of bacteria were placed in test tubes in 5 c.c. of bouillon and controlled as to the number. They always had an abundance of food. The culture was filtered and placed after certain periods in a fresh bouillon. The control of the fact whether the bacteria were in a state of reproduction was given by addition of bacterio-phage. It was found that the bacterial population grows in number along the logistic curve to a certain stage of saturation of space, where in demographical terms the birth-rate and the death-rate were in equilibrium. This equilibrium lasted for some time and then there began a decrease of the number of bacteria. This decrease followed the course of the logistic curve, but in the inverse sense. The course of it was about three times longer than the course of the growth, and, finally the decrease of number was caused, not merely by deaths of already living microbes, but by still higher differences between natality and mortality. The mortality was increasingly higher than natality. Another point is that different

microbes needed different space. With certain microbes the space was saturated by a much lower number than by others, although the differences in the size of their bodies were not remarkable.¹ According to Professor Pearl, the density of population affects the birth-rate. But here we see that the birth-rate, so to speak, is permanently affected after a certain duration of highest density. Also when the density is afterwards lower and lower, the birth-rate does not grow, but diminishes progressively till it vanishes absolutely. The changes in the numbers of human and bacterial populations seem to develop in the form of the logistic curve and the life of any population is really limited by some not yet known absolute upper asymptote, even when the amount of food remains in abundance.

In normal wild life we can, however, hardly expect to see this type of check of numbers. Even in the food-flies though the population is stabilised by a fall in fertility with density which is more important than the rise in the death-rate, the stable density is three to five times greater than the optimum density as judged by the length of life which is as good a criterion as one can get. Among wild populations of rabbits and other animals mainly mammals and birds the work of Elton has shown that both disease and the limitation of food-supply determines for each species a certain optimum density which is neither too low nor too high and is not the same at different times or in different ecological areas. Before actual starvation keeps down the numbers, enemies control them while epidemic diseases appear as new checks striking a sort of balance of the numbers with the surroundings. Herbivorous animals like the deer and antelope which cover miles and miles of territory in South Africa depend on their usual enemies to preserve their optimum numbers and to prevent them from overeating their food-supply. Serious plagues of mice,

¹ F. J. Netusil's Remarks in 'Proceedings of the World Population Conference, 1927, pp. 47-48.

rats and other rodents are found to occur from time to time in various parts of the world when their numbers outrun the check of their enemies. It is then that an epidemic appears and kills the rodent populations bringing down the number even below the mean. McKendrick's work also demonstrates that in many cases as soon as the population density exceeds a certain value, epidemics which would otherwise fade out will go through the whole population.

It also appears that birds as well as carnivorous and herbivorous animals seem to have territories each owned by one or a few families or individuals. Such division into territories which is connected with courtship or nesting and other habits of the species in question indirectly limits numbers. Where the animals have fewer enemies the territorial system seems to be the convenient means of regulating numbers. The fact that animals become less abundant as we pass from herbivores to carnivores makes it possible for the latter at a certain point in their series to limit their numbers by dividing up their country and therefore the available food-supply.² It must be pointed out that both amongst certain birds and among carnivores the territorial systems are not always meant to divide only the food-supply in a suitable way. They are connected with a chain of habits relating to courtship, nesting, watering, etc., which represent certain psychological factors controlling the numbers. It also appears that bees, ants and termites which live in great aggregations have some system of spacing out their colonies so as to prevent congestion. Thus both among the social insects as well as amongst the isolated carnivores we find a sort of preference, sometimes physiological, sometimes psychological to avoid undesirable density.

As we rise in the scale of evolution it is the psychological factors which gradually play a more dominant part in the regula-

² See Elton, 'Animal Ecology,' pp. 122-26; also Howard, 'Territory in Bird Life.'

tion of numbers. Indeed, it is amongst the terminal animals which are either at or near the end of food chains and consequently have fewer enemies (leaving aside the parasites) that the division of country into territories is more common. At the same time animals at the end of food chains control their numbers by a slower rate of breeding. Some do not even breed at all. Elton gives instances of the snowy owls, skuas, and lemmings which in certain year when food is scarcer than usual do not propagate. The reproduction of the carnivore is adjusted to such a low rate that its numbers always remain small and there is hardly any danger of over-stepping the limits of food-supply. In man spatial and social psychological factors limit numbers but the artificial conditions of food, shelter and clothing have superseded periodicity in sex-life, made the mature period longer, and diminished the importance of the natural check of numbers in the low rate of reproduction. Amongst backward peoples and the lower strata of a civilised society not merely is there high rate of reproduction, but the social psychological causes also hardly check numbers so that the danger of over-eating the food-supply is much greater than in the case of many animals which control their numbers in diverse ways.

It is clear from evidence that primitive tribes had or still have their rutting seasons as regularly as have the deer, the antelope, the dog, the wolf or any other animals.³ Domestication of wild animals has led to the extension of the sexual season and increase of the number at a birth. Heape observes: "It would seem highly probable that the reproductive power of man has increased with civilisation, precisely as it may be increased in the lower animals by domestication; that the effect of a regular supply of good food, together with all the other stimulating factors available and exercised in modern civilized communities, has resulted in such great activity of the generative organs, and so

³ See Carr-Saunders, 'The Population Problem,' Ch. V.

great an increase in the supply of the reproductive elements, that conception in the healthy human female may be said to be possible almost at any time during the reproductive period." It appears on the whole that man's control of the food supply, its variety, richness, certainty and regularity as well as, general improvement of the conditions of life, which have minimised the dangers to which the young are exposed have not only increased fecundity but have destroyed the natural limit of the increase of numbers by the high development of the parental and gregarious impulses, the prolonged state of infancy, and a more or less successful protection of the offspring. Yet in more advanced communities, and in the same community among the higher social strata, both social and psychological factors play the larger part in controlling and reducing fecundity than in backward communities and social groups. It is thus that we may to some extent measure the rise in the scale of evolution of species of animals and of human communities and groups, by low fecundity and the artificial control of reproduction, which indirectly ensure a high average expectation of life. Generally speaking not merely is fecundity lower in the higher economic and social strata compared with the lower layers of the population, but the former also show greater longevity and lower infant mortality. According to Casper, the following number out of 1,000 princes and 1,000 poor survive the ages. "With still greater reason this may be said of the longevity of prominent men, generally, compared with that of the common people."

Ages—Years.	Princes.	Poor.
5	943	655
10	938	598
50	557	338
80	57	21 and so on. ⁴

⁴Sorokin, 'Social Mobility.'

Districts.	Years of equilibrium density.	Vital Indices before the year of equilibrium density.				Vital Indices in the years of epidemic outbursts.			Vital Indices after the year of the equilibrium density.			
		1881	1886	1891	1896	1905	1908	1918	1901	1906	1911	1921
Agra	1901	145.5	100	165	133	52	54	79	142	94	98	108
Aligarh	1901	180	96	143	150	92	52	31	153	121	90	105
Cawnpore	1901	106	109	92	121	86	86	42	126	63	94	84
Etawah	1901	126	92	110	155	118	62	43	150	75	93	88
Lucknow	1901	125	121	99	113	75	59	44	113	103	93	97
Muttra	1901	138	90	136	147	36	39	28	118	98	98	116

$$\text{Vital Index} = \frac{100 \text{ births}}{\text{deaths}}$$

No single measure gives so sensitive a measure of the vitality of a population. If the ratio is less than 100 the population is biologically unhealthy. In years of epidemics the vital index falls, and in years of good harvests (e. g., 1916) it rises.

Sorokin who has made a careful study of the fundamental differences of the lower and higher classes concludes as follows. The higher social classes are stronger physically and also healthier and have a greater vitality, than the lower ones. The duration of life of the higher social strata is longer and their mortality is lower than that of the lower social layers. The health of the higher classes is better than that of the lower. On the average, the higher social classes are superior physically to the lower classes. These facts show that the social stratification is positively correlated with the stratification of the same population from the standpoint of health and strength and physical superiority. This correlation seems to be permanent; it has existed in the most different societies of the most different times, with the exception of the periods of decay of the aristocracy or the whole society.

We have seen that in artificial populations of flies and bacteria the mean duration of life tends to diminish progressively as a certain optimum density is over-stepped. Both human and bacterial population seems to grow in the form of the general logistic curve and it appears that it is *the highest average expectation of life* from which we should judge the optimum density. This should be taken for the present as the absolute upper asymptote which would limit the growth of numbers even when there is no limit to the conditions of the satisfaction of primary or secondary wants.

The Indian evidence of the growth of numbers in the Ganges Valley indicates that the rate of reproduction expands or contracts in sympathy with the increased or diminished food-supply (or the conditions of rainfall generally). The rate of mortality also contracts or expands in sympathy with good or bad harvests. This will be evident from the movement of birth and death-rates during 1901—1921 in the Indo-Gangetic plain, west, central and east shown in the accompanying tables. Such close correspondence shows, first, that the masses do not obtain chance of child-bearing by separation from home in search of employment, etc., whenever

harvests are unsatisfactory, while actual famine or starvation greatly diminishes vitality and lowers the birth-rate. The relation between sterility and mal-nutrition has been traced in many countries. In feeding animals on diets extremely deficient in vitamin B, McCarrison noticed in 1918, that atrophy of the testes was one of the earliest effects. During famines and war, sterility in women and failure of the menstrual functions have been recorded as evidences of mal-nutrition.⁵ No doubt the consumption of wheat which contains vitamin B is considerably reduced if not altogether ceases during a year of scarcity or famine, while milk and milk products as well as some fresh vegetables all of which are rich in vitamin E that has also been considered to have favourable effects on reproduction are entirely eliminated from the diet. On the other hand, famine or scarcity increases the death-rate. The close correspondence between mortality and bad harvests indicates that the diminution of birth-rate is due mostly to the lowering of vitality, the whole population being at the subsistence level. The average expectation of life in India is exceedingly low, 24.7 years as compared with the average of 50 years in most of the European countries; and it appears that the density in some of the 'super-saturated' districts which is already much higher than the optimum density remains stable or is actually decreasing. But obviously the stable density must be much lowered, i.e., there should be lower death-rate and corresponding lower birth-rate before India can approximate to the average expectation of life in the West.

We may express the notion of optimum population in a single formula as follows:—

$$P_R \times \text{Prod} = S.P_T \quad \dots (1)$$

$\text{Prod} = F$ (Soil index, Index of aridity, Irrigation).

Optimum population cannot be defined except as the co-factor of some 'optimum' standard of living. But it is difficult to see

⁵ Royal Commission on Agriculture in India, Vol. I, Part II, Evidence.

how any such standard of living can be defined except perhaps by means of the idea that there exists a definite standard of living, say S_1 such that if $S > S_1$, in any society, that society possesses luxuries which in the long run are physiologically detrimental; while if $S < S_1$, there is starvation in a greater or less degree leading to increased predisposition to disease and mortality. Thus a high standard of living implies, physiologically speaking, a high average expectation of life, which ensures the optimum productivity of the individual. If this be correct S_1 is the optimum standard of living, as measured by the optimum expectation of life, and the value of P_T given by (1) is the optimum population.

Productivity is the number S_1 of calories produced by each and producer S is the number of calories consumed by each consumer.

The formula (1) assumes that the consuming population absorbs all calories produced by the producers. If there is export, for instance, (1) must be replaced by $P_P \times \text{Prod} = (S \times P_T) + E$ where E is the number of calories exported. If calories are imported E would be negative. But if export takes place the condition is not an optimum. For we could increase either S or P_T or both by utilising the surplus E .

In the case of import, a stoppage of the import would diminish either S or P_T or both.

But either export or import assumes that the adjustment of the population to the food-supply is not the closest possible. If the adjustment is the closest possible $E=0$, and (1) holds good

The optimum population, then, is merely

$$\text{Optimum } P_T = \frac{P_P \times \text{Prod}}{S_1}$$

where S_1 is the optimum standard of living.

When we have determined the optimum population, the mal-adjustment in any particular society may be measured.

If we express it as a percentage of the optimum population it will be

$$100. \frac{P_0 - A}{P_0}$$

where P_0 is the optimum population, and A is the actual population.

In a case like the central or eastern portion of the Ganges Valley, where the food-supply is barely sufficient to support existence, we cannot say that S_1 is ever attained. The condition $S < S_1$ is permanently satisfied. The slightest increase in the food-supply is immediately followed by an increase in population which reduces S to that value which represents bare existence. On the other hand, the slightest diminution of the food-supply, as the result mainly of deficient or irregularly distributed rainfall, is immediately followed by a higher rate of mortality and decrease in population. The success or failure of the harvests influences the prevalence of epidemics, the mortality and the rate of reproduction, and thus brings about the adjustment between population and food-supply. This will be evident from a closer study of the relation between fluctuations of the total area cultivated and the rates of reproduction and mortality in typical districts of the Ganges Valley. (See tables.)

Increase in productivity alone will never produce optimum conditions. Nor will increase in the producing population alone, nor both together if P_T also increases. In order to attain any value of S above the minimum necessary for subsistence we *must* limit the total population, if P_P remains fixed. In other words we must increase the value of the ratio $\frac{P_P}{P_T}$ or the value of the productivity or both.

In the Gangetic plain the ratio is for all practical purposes a constant. The number S is more or less permanently fixed at its minimum subsistence value. Productivity depends much less on the soil index than upon rainfall and irrigation except in the newly-formed deltaic area, the reason being that the whole of the valley is now in a mature stage.

Productivity therefore depends on the soil index, the index of aridity and the percentage of irrigation.

It appears then that the population of large parts of the

Ganges Valley after reaching a certain density shows a tendency towards diminution. The primary cause which stabilises the population is a higher death-rate than a falling birth-rate; as early as the next favourable agricultural season, birth-rate leaps up and the vacuum created by increase in the death-rate is at once filled up. It is the enormous increase in the death-rate which primarily controls population density. It is obvious that human numbers tend to approach the equilibrium density and also that the optimum density is much smaller than the equilibrium density.

The distinction between optimum density and equilibrium density is of value only to a community where psychological factors play a dominant part in the control of numbers. We have already seen that the terminal animals control their numbers by a lower rate of reproduction. The territorial division both among birds and carnivores represents an indirect operation of both psychological and economic factors in controlling the numbers. Among the small gregarious herbivores, however, density rapidly increases and after it has already increased a good deal, fecundity far from being reduced is actually increased. Thus rabbits, lemmings, field-mice, etc., Julian Huxley observes, have cycles in which the population increases gradually to a maximum, and then, through an epidemic, is brought rapidly down to a minimum. The same holds good of masses of congested populations in India and in China, among whom the equilibrium density is reached as in the case of rabbits and field-mice by an enormous and even catastrophic increase in the death-rate, showing itself in epidemic diseases, when the population reaches a certain level. When we speak of an optimum for human numbers, on the other hand, we should seek as our standard the maintenance of conditions of maximum physiological well-being S_1 and not the minimum subsistence value at which S seems to have been permanently fixed in India or China. Thus an optimum density of population is that where we have *the highest average expectation of life*. We have already seen that longevity and the mean age are greater among

the higher social classes than among the lower in all countries. The average expectation of life is diminished both by poverty as well as by luxury and we can take a high average expectation of life as an excellent index of economic, social and moral progress.

In the congested plains of India and China there is no attempt to reach a higher grade of physiological or social well-being. Both the average expectation of life as well as the standard of living are exceedingly low and are further lowered when a favourable agricultural season creates more mouths to feed. Population here tends to reach not an optimum but an equilibrium density as the result of a gradual or sudden increase in the death-rate. The indirect limiting factor is of course the food-supply. Comparing the trend of population density, and birth and death-rates for over three or four decades in some districts of the Upper and Central Plain, we find that mortality tends to be greater than natality after a certain equilibrium density is over-stepped, and in a few cases, we find that the birth-rate is permanently affected. Thus the movement of population in certain areas of the Ganges Valley is similar to that of bacterial population, tending to follow Pearl's logistic curve. In what decade the equilibrium density has been reached in a particular district depends upon agricultural, and, especially, hydrographic conditions. But no sooner is it reached than we find a decrease of density either through the decreasing survival-rate, or through a permanent lowering of the birth-rate. Thus the population trend seems to be alike in human and bacterial populations when they reach a certain stage of saturation of area.

The Swedish statistician Strundberg divides the population of a country into following age groups: 0—14, 15—49, and 50 onwards (pre-maturity, maturity and past-maturity), and distinguishes between progressive, stationary and retrogressive types according to the percentages of population in the pre-maturity and past-maturity phases, 50 per cent of the population in all countries, where the figures are not upset by migration, falling in the maturity period.

STRUNDBERG'S TABLE

Age-Group Years	Per cent of Population		
	Progressive Type	Stationary Type	Retrogressive Type
0—14	... 40	33	20
15—49	... 50	50	50
50—onwards	... 10	17	30

Applying Strundberg's formula to the different ecological areas of the Ganges Valley we get the following table:—

	Age 0—14	Age 15—49	Age 50—onwards
Western Ganges Plain ...	38	50	12
Central Ganges Plain ...	35	52	13
Eastern Ganges Plain ...	39	49	12
North Bihar ...	37	50	13
South Bihar ...	37	50	13

It will appear that none of the above areas are progressive; in fact these tend more towards the stationary than the progressive type. The Central Ganges Plain has the most unfavourable figures. It must be pointed out here that the mature period for Indian women is shorter and old age comes quicker in India than in Strundberg's formula and also that a large number of women in the child-bearing period are widows and cannot be re-married. These considerations would tend to make the type of the population still more stationary.

Gait in his Census Report of India, 1911, took 15—40 age period as his basis of Indian comparison. On this basis the table for the different areas of the Ganges Plain will be as follows:—

	Age Period 0—15	Age Period 15—40	Age Period 40—onwards
Indo-Gangetic Plain, West ...	37	41	22
Indo-Gangetic Plain, Central	35	41	24
Indo-Gangetic Plain, East ...	39	38	23
North Bihar ...	37	55	23
South Bihar ...	37	40	23

Thus populations in the areas in Bihar and the Indo-Gangetic Plain Central, represent a more stationary type than those in the other areas. All the areas seem to be more unprogressive than what could be deduced from the former table.

Indo-Gangetic Plain

West				Females	
1. Meerut	...	...	0—15	37.9	
			15—40	39.6	
			40—onwards	22.5	
2. Aligarh	...	...	0—15	36.9	
			15—40	40.5	
			40—onwards	22.6	
3. Muttra	...	...	0—15	38.2	
			15—40	38.5	
			40—onwards	23.3	
4. Agra	...	...	0—15	37.5	
			15—40	40.7	
			40—onwards	21.8	
5. Etawah	...	...	0—15	37.5	
			15—40	41.7	
			40—onwards	20.8	

Indo-Gangetic Plain, Central.

6. Cawnpore	...	...	0—15	35.9	
			15—40	41.3	
			40—onwards	22.8	
7. Allahabad	...	...	0—15	37.3	
			15—40	39.9	
			40—onwards	22.8	
8. Lucknow	...	...	0—15	34.3	
			15—40	39.9	
			40—onwards	25.8	

Indo-Gangetic Plain, East.

West			Females	
9. Benares	...	...	0—15	38·4
			15—40	37·9
			40—onwards	23·7
10. Jaunpur	...	...	0—15	37·9
			15—40	38·8
			40—onwards	23·3

All the above districts are found to be of the stationary type. Meerut, Muttra, Lucknow, Benares seem to be especially worse off.

In East Bengal, on the other hand, the progressive type of population is quite in evidence.

Females	Noakhali	Active Delta Bakarganj	Tippera
0—15	... 44·9	41·7	44·0
15—40	... 40·9	42·1	16·2
40—onwards	... 14·2	16·2	13·9

While in the Moribund Delta the population tends to be more consistently retrogressive than anywhere else in the Ganges Valley.

Females	Jessore	Moribund Delta Nadia	Murshidabad
0—15	... 35·6	35·7	36·9
15—40	... 43·7	42·6	42·4
40—onwards	... 20·7	21·7	20·7

This area maintained a swarming population in the medieval period but today the inevitable coming of age of the alluvial plain coupled with man's artificial interference with the natural drainage channels due to increase of population has spelled stagnation and decline.

SOME RECENT DEVELOPMENT IN THE THEORY OF POPULATION¹

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1. Introduction.

Since the middle of the recent World War, there has been a revival of interest among writers on Economics, in the problem of Population. This has naturally led to the re-examination of the old theories on the question, first enunciated by Malthus, later developed by John Stuart Mill, and finally established by Marshall. From the earliest days there has been dissentient voices, which refused to accept the categorical assertions of the 'classical school'. Of late, these protestants have increased in number and importance and they have evolved a new creed. The followers of Malthus therefore have had to put up a strong fight in defence of their position. Thus, during the last ten or twelve years there has been a regular 'Battle of Books' over the question.

The Over-Population Controversy in England.

Mr. Keynes, who is generally regarded as one of the most brilliant pupils of the late Prof. Marshall and whose few slim books on Current Economic problems are read with the avidity of the latest fashionable novels, set the ball rolling in 1919. In his '*Economic Consequences of the Peace*' he reminded war-worn England of the Devil originally 'disclosed by' Malthus. Sir William Beveridge, the Director of the London School Economics, soon after entered the arena and attempted to exorcise the phantom raised by Keynes by means of his Presidential Address to the Economics Section of the British Association (1923). Mr. Keynes

¹ For a Summary of the points of the Paper, please see Sec. 13 below.

parried and partisans have been falling in, for either side, since then. Even our association has contributed its own quota to the arrayed forces in the person of our distinguished Vice-President, Mr. C. J. Hamilton. At our seventh Economic Conference held in Bombay early in January, 1924, Mr. Hamilton read a long and interesting Paper on the '*Population Problem in India.*' In it, he first enunciated certain theories on Population and then attempted to apply them to the case of India. Since then several important books and papers on the subject have appeared both in England and in India. I have therefore ventured to invite your attention to certain phases of this controversy, in this paper of mine.

2. Two Tendencies in recent Economic Thought on the Population question.

Two tendencies are apparent in recent studies in England on the Population question. There is first an attempt to reaffirm the doctrines of Malthus and apply them to the facts of recent Economic History. Efforts are being made, on the other hand, to develop a new theory of Population untrammelled by past traditions and more scientific in character. The two are represented by the 'Cambridge School' and the 'London School' respectively. The views of the former are contained in one of the "Cambridge Economic Hand Books," dealing with 'Population' and written by Mr. Harold Wright, to which Mr. Keynes the General Editor of the series, has contributed a thoughtful preface. For the principles of the other party, we have to go through the writings of Prof. Cannan and his eminent disciples Mr. Robbins and Mr. Dalton. They have not yet been presented in a compact form. Let us consider each of these, one after the other.

3. The Neo-Malthusian Argument.

To take up Wright's book first, we find, that, after giving a brief history of the early theories on Population he reproduces the

Malthusian argument in Malthus' own words (pp. 23—30) and gives the latter's summary of it, which is well-known even to the beginner in Economic Studies, viz., (1) Population is necessarily limited by the means of subsistence. (2) Population invariably increases unless prevented by some very powerful and obvious checks. (3) These checks and the checks which repress the superior power of population and keep its effects on a level with the means of subsistence are all resolvable into moral restraint, vice and misery.²

It is significant that Mr. Wright has omitted here the *basic* principle of Malthus, viz., "Population when unchecked, increases in geometrical ratio; subsistence increases only in an arithmetical ratio." This is hardly fair to Malthus, because, as Wright himself is aware, it was the special claim of Malthus that he alone, as distinguished from previous writers on the subject, had made 'the comparison between the increase of population and food with greater force and precision.'³ There is however some justification for Mr. Wright's omission, 'the precision was more apparent than real,' admits the advocate, and pleads Malthus' mathematical training in extenuation of his mistake. But he forgets that if this fundamental principle goes, the whole argument of Malthus falls to the ground and his essay 'remains only a chaos of facts collected to illustrate the effect of laws which do not exist.'⁴ In other words, Malthus appeared to adopt the inductive method to enunciate a law regarding the relation between population and food, but the facts on which he based his conclusions are not true. In fact, population has never increased in geometrical ratio, in any country over a long period. Hence the so-called law is no law but an inaccurate statement only, based on incomplete data. This is generally accepted by writers who have applied the statistical method to the study of the Population question in recent times:

² Wright, p. 27.

³ *Ib.*, p. 29.

⁴ Cannan, *Theories of Production and Distribution*, 2nd Edition, p. 144.

cf. Brentano's Article in the *Economic Journal*, 1910, p. 270 *et seq.*, and the views of Bowley and Sidney Gule.⁵ According to the latter the percentage rate of increase of Population tends to fall as density increases.⁶

Malthus' Law of Population and the Law of Diminishing Returns.

Like a devoted lawyer, Wright next finds a new plea for his client. He says, "If we substitute the Law of Diminishing Returns in agriculture or the arithmetical ratio of Malthus' essay, we shall see that the conclusion remains unchanged" and quotes the following statement of Mill with approval: "It is vain to say that all mouths which the increase of mankind calls into assistance bring with them hands. The new mouths require as much as the old ones and the hands do not produce as much," and he adds "Population must still press upon the means of subsistence, unless the checks of vice, misery or moral restraint intervene" (pp. 32-33). Here again Wright's argument is shaky and does not improve the value of the conclusion. First as Mr. Cannan has pointedly put it "to imagine that *the Essay on the Principle of Population* was ever based on the law of Diminishing Return is to confuse Malthusianism as expounded by J. S. Mill with Malthusianism as Malthus founded it."⁷ Secondly, as the same critic has remarked, "Malthus himself had never taken the new hands into account at all. He neglected entirely the increment of labour supplied by the increment of Population."⁸

Thirdly, as Cannan has written in another place, "Why should not the increased number of people be able to grow a proportionally increased amount of produce? or even more seeing that they would be able to draw greater advantage from division of labour?" Malthus' argument gives no answer to these questions.⁹

⁵ *Statistical Society's Journal*, Jan., 1925.

⁶ *Ib.*, p. 29.

⁷ Cannan *Theories*, etc., p. 144.

⁸ *Ibid.*, p. 180.

⁹ Cannan, *Wealth*, p. 48.

4. Later History of the Malthusian Theory.

Quite unconscious or unmindful of these defects in the original as well as the reformed Malthusian theory, Mr. Wright passes on to trace its later history. He writes: "J. S. Mill however, adhered firmly to the general teaching of Malthus and Ricardo, which he re-stated in a more complete and scientific form."¹⁰ This statement is quite surprising in view of Professor Cannan's minute analysis of Mill's views and his scathing criticism of them.¹¹ The surprise is all the greater because, Mr. Wright is quite aware of Professor Cannan's views. He has himself quoted certain portions of them and made a feeble attempt to contest them. Thus he has written: 'hence it became fashionable to speak of Scientific-law' and even so acute a critic as Professor Cannan asked, in 1903, why "Mill should be at the trouble of developing a law which (1) should not come into operation at a very early date in the history of society; (2) is liable to temporary supersessions; and (3) has been made head against by an antagonising principle, viz., the progress of civilization, throughout the known history of England." As against this view, it may be urged that if we were to ignore all those scientific laws which are counteracted by other laws, we should not get very far in our interpretation of phenomena."¹² In reply to this, we have only to repeat what Cannan has said in another place: "A scientific law should be true at all times and places, and should not be liable to 'temporary supersessions' or failures to come into operation, nor capable of being replaced by a contrary law."¹³ In other words, an Economic Law is only a statement of a tendency and if there is a contrary tendency counter-acting the former at every step no object is gained by calling either a Law.

¹⁰ Wright, p. 50.

¹¹ *Theories*, pp. 175—182.

¹² Wright, pp. 52-53.

¹³ *Wealth*, p. 59.

To conclude our review of Mr. Wright's rehabilitation of Malthus' theory, it may be stated that both Malthus and Mill as well as their modern followers Keynes and Wright have been frightened by the spectre of over-population in England and have allowed their scientific vision to be dazed by that apparition.

5. Mr. Hamilton's Views on 'Over-Population.'

Much the same thing has to be said in regard to the theoretical portion of Mr. Hamilton's Paper, referred to earlier.¹⁴ Though he begins the discussion with an attempt to define 'Over-Population' he has not succeeded in it. He has merely drawn a distinction between 'Over-Population as a *state* and Over-Population as a *tendency*.' The former he adds may be either relative or final. The first test of over-population, according to Mr. Hamilton, is this: 'Is the population pressing on the means of subsistence?' (p. 148). If we ask how that pressure is to be gauged, Mr. Hamilton answers, not by the rate of death from actual starvation, nor by the low standard of comfort of the people but by the high rate of mortality (especially of infants), by '*reason of poverty*.'¹⁵ Hamilton's choice of this measure seems to be unfortunate. For, while the first two standards are capable of easy application, the last is most elusive. How are we to decide that poverty is the sole or main cause of mortality in a country, either of infants or of grown-up people? In most cases, even among the poor, it is ignorance of the laws of health as much as their poverty that would account for their high mortality.

Another test which Mr. Hamilton suggests is: 'whether Population is being actually restrained from a more rapid increase by the effects of poverty rather than as the result of a rational limitation of numbers' (p. 149). Perhaps we may put it better in

¹⁴ See *Proceedings of the Seventh Indian Economic Conference, 1924*. pp. 145—168.

¹⁵ *Ibid.*

Malthus' language thus: if the positive *checks* are working and not the *preventive* checks, in a country, there is over-population there. And one may well ask, what is the authority for this? The writings of neither Malthus nor of his devout followers warrant such a test.

In the latter part of his Paper he applies these two tests to the case of India and comes to the conclusion that India is over-populated; because, he finds in India a high death-rate especially of infants *on account of poverty* and the absence of the preventive check. He is also of opinion that the high Indian birth-rate is another sign of over-population (p. 165). On the other hand, it may be argued first that, according to the strict enunciation of Malthus' theory, there cannot be over-population¹⁶ and secondly, that the term 'poverty' is one of the most indefinite terms in Economics. In fact, the whole Paper of Mr. Hamilton appears to be based on the unwarranted assumption that 'poverty is today largely the result of excessive numbers' (p. 152). One may as well maintain the converse proposition; 'over-population is largely the result of poverty.'

Reasons for Mr. Hamilton's Mistake.

I may perhaps be accused of being uncharitable to Mr. Hamilton if I go behind his Paper and explain the motive underlying it. But the fact seems to be that he is following the Malthusian tradition very closely. Just as that teacher of the East India Company's Haileybey College in England wanted to explode the optimistic views regarding the future of society held by Mr. Goodwin and his band of reformers, this Professor of Patna wishes to combat the opinions of Indian publicists that the poverty of India might be the result of the policy of its governments, in the remote or immediate past and that one remedy for it may be greater industrialization (pp. 155-6). 'No,' says Mr. Hamilton. 'The poverty

¹⁶ See Cannan, *Theories*, 2nd Edition, p. 137, note 1.

of India is due only to over-population.' 'So long as the tendency of population to outrun the means of subsistence continues there will be no escape from the (central fact of the poverty of the mass of Indian people' (p. 155). Even the strict followers of Malthus may protest; 'that cannot be.' 'Population can never outrun the means of subsistence'; for, has not our Master said; "Population is necessarily limited by the means of subsistence." But Mr. Hamilton is '*plus royaliste que de noi*' and would only pass on, saying, 'India can only look forward to an advance to a state of reasonable comfort among her people as the result of a drastic change in her marriage customs and in the unchecked procreation of children which at present prevail' (p. 168).

Regret for Mr. Hamilton's Mistake.

Our regret is all the greater in Mr. Hamilton's case, because he is quite aware of the latest theory, on the Population question—'the optimum theory' (pp. 148 and 149) and its applicability to India. One may perhaps credit him also with the knowledge of the *origin* of the theory and the reasons for its rise, *viz.*, that it was due to the dissatisfaction felt at the classical Economist's Law of Population. But Mr. Hamilton does not care to use his knowledge. He summarily rejects the new theory because, he says, 'in my opinion this method of formulating this issue is not satisfactory' (p. 149). He does not however explain why he holds such an opinion.

6. The Views of the 'London School.'

Let us now proceed to describe the attempts made by the 'London School' to evolve their new theory of Population. As one of its exponents has put it: 'From the point of the economist, the theory of Population has two branches. The first is the theory of the causes which determine the growth or decline of numbers in the world as a whole or in such smaller areas as may seem to be of special interest or significance, such as areas bounded by

national frontiers. The second is the theory of the relations between Economic welfare and changes in numbers. The first branch of the theory must rest mainly on a statistical or inductive basis. The second branch offers more scope for general reasoning of a deductive kind, though here too the inductive method has an important part to play.¹⁷

Malthus attempted to cover both these branches but as Marshall has stated, it is only 'with regard to the supply of Population (that is, the growth of Population) that Malthus' position remained substantially valid.'¹⁸ In other words, Malthus' first proposition is correct: 'Population is necessarily limited by the means of subsistence.' The other two propositions which have reference to the abovementioned second branch of the theory are not only 'antiquated in form'¹⁹ but are invalid in substance, except with large qualification.²⁰

Cannan's 'Law of Population.'

In regard to this branch of the theory as against Malthus and Mill who regarded the growth of Population as always prejudicial to progress, the modern Economists would side with Prof. Cannan who has said: 'It is not true that an increase of Population must always diminish the productiveness of industry or that a decrease of population must always increase the productiveness of industry. The truth is that the productiveness of industry is sometimes promoted by an increase of Population and sometimes by a decrease.'²¹ It is however true, that at any given time, the amount of labour (supplied by population) 'which can be exerted on a given piece of land, consistently with the attainment of the greatest produc-

¹⁷ Dalton : *Theory of Population Economica*, March, 1928, p. 29.

¹⁸ *Principles*, 5th Edition, p. 179.

¹⁹ Marshall, p. 180.

²⁰ Contra, Marshall, *ibid*.

²¹ *Elementary Political Economy*, p. 21.

tiveness of industry at that time is definite' that is to say, 'at any given time the population which can exist on a given extent of land, consistently with the attainment of the greatest productiveness of industry possible at the time, is definite.'²² According to Cannan, this is the only *real* 'Law of Population.' This theory has been largely developed by Prof. Cannan and his disciples Messrs. Robbins and Dalton, since the beginning of this century, Mr. Robbins is also responsible for the proper appreciation of his master's pioneer work on the subject.²³ Let us now trace the history of this theory.

7. Cannan's Development of this Theory.

It was in 1888, that Prof. Cannan first made the abovementioned observations. Subsequently he went on elaborating his ideas in successive works of his, till his mature views are embodied in his '*Wealth*' (1914). In his second book, '*The Theories of Production and Distribution*,' 1776—1848 (1st Edition 1893), he demolished the crude opinions of Malthus and Mill, as has been already pointed out. To the second edition of the same work published in 1903, he added certain observations at the end, which explain his earlier enunciation of the theory: 'It is now clearly recognised that the point at which returns to industry cease increasing and begin to diminish, the point it may be called of maximum productiveness is constantly being shifted by the progress of knowledge and other circumstances and that the shifting is generally in the direction of increasing the population which is consistent with the maximum productiveness possible at the time.'²⁴ As Robbins has remarked "It is in '*Wealth*' (1914) that the new doctrine receives its most penetrating and comprehensive statement . . . the point of maximum productiveness 'of 1903 now

²² *Ib.*, p. 22.

²³ See *London Essays in Economics*, pp. 103—137.

²⁴ *Ibid.*, p. 397.

becomes the point of maximum returns and an obvious improvement in terminology. Much more important, the old distinction (accepted by Cannan in 1888) between agriculture and manufacture, so fatal to clear thinking in the past is frankly abandoned "If we start from what I have called the point of maximum return we can say of manufacture as well as of agriculture that the returns diminish as we move in either direction from that point."²⁵ What follows in Cannan's Book is also worth quoting, on it completes his argument: "If we suppose all difficulties about the measurement of the returns to all industries taken together to be somehow overcome, we can say that at any given time, knowledge and circumstances remaining the same, just as there is a point of maximum return in each industry, so these must be in all industries taken together. If population is not large enough to bring all industry up to this point, returns will be less than they might be, if, on the other hand, population is so great that the point has been passed, returns again are less than might be."²⁶ It has only to be added that the population which just makes the maximum returns possible is the *optimum* or best possible population. This is what has come to be called the 'Optimum theory' (Robbins) or the 'optimum density theory' of Population (Carr-Saunders). Some people like the late Mr. Allen A. Young object to the use of the word 'theory.'²⁷ So we may call it the *Economic* 'Principle of Population.'

8. Dalton's Contribution to its Elucidation.

Mr. Dalton has made a valuable contribution to the elucidation of this conception.²⁸ He says that the optimum population

²⁵ Cannan, *Wealth*, 1st Edition, pp. 67—69; 3rd Edition, 1928, p. 58; Robbins, *Essay*, pp. 117-118.

²⁶ *Wealth*, 3rd Edition, p. 58.

²⁷ *Economica*, March 1928, p. 114.

²⁸ See his *Essay on the Theory of Population*, *Economica*, March 1928, pp. 28—50.

is not that which yields maximum returns merely but that which gives maximum *economic welfare for each individual*, which for all practical purposes means maximum income per head (p. 30). Thus he brings us to the popular statement of the 'Optimum Density Theory,' as given by Carr-Saunders: 'In any country at any given time, there is a certain amount of skill and knowledge available, and there are certain habits and customs which govern the use of this skill and knowledge.' Taking all these conditions into consideration, it is clear that there is a particular density of population which must be reached and must not be exceeded (if the largest possible income per head is to be obtained).²⁹

'Mal-adjustment' of Population.

From this definition of the 'optimum,' Mr. Dalton naturally deduces the meanings of the common- and commonly misused- terms *over-population* and *under-population*. "If numbers are greater than the optimum, a condition of over-population may be said to exist if less, a condition of under-population. In both cases there is a mal-adjustment of actual numbers to the optimum."³⁰ He is not satisfied with attempts to prove the bare *existence* of such mal-adjustment but would go further to measure the *degree* of such mal-adjustment. 'Mal-adjustment,' according to him, 'is a function of two variables. If A represents actual numbers and O the optimum and M the degree of Mal-adjustment then $M = \frac{A-O}{O}$ Positive values of M indicate over-population and negative values under-population.'³¹

What he says in continuation is also of practical interest: 'over a period of time either A or O, may change, while the other remains constant or both may change either in the same direction or in opposite directions. Changes in A, may be observed but

²⁹ *Population*, pp. 26-27.

³⁰ *Ib.*, p. 31.

³¹ *Ib.*, p. 35.

not, in our present state of knowledge changes in O, nor therefore changes in M.³²

Difficulties in the Quantitative Determination of the Optimum.

It has to be said in this connection that the exact value of O is hard to determine in our present state of knowledge. As Cannan wrote in 1888, "to show that both under-population and over-population are possible is not the same thing as showing that either of these things exists now or has ever existed. . . . The existence of over-population or under-population is not susceptible of exact demonstration."³³

9. Qualitative Analysis of the 'Optimum.'

Though it is impossible to determine the exact optimum *quantitatively*, it is comparatively easy to fix it, in a *qualitative* manner. As Dalton says, 'O is determined, for any area by the interplay under the influences of hypothetically changing numbers, of two factors, natural resources per head and facilities for economic co-operation, including co-operation with the inhabitants of other areas. As A increases, hypothetically, from zero to O, the first factor diminishes, but the second increases and outweighs it; as A increases, hypothetically, beyond O, the first factor continues to diminish and outweigh any further increases in the second.'³⁴ 'During outbursts of economic progress' continues Dalton, 'the second factor increases with exceptional rapidity and O tends to increase with it. During war and in periods following war when political frontiers are suddenly changed, new tariffs and other obstacles to trade are set up and pre-war trade relations dislocated, facilities for co-operation shrivel, the second factor suddenly diminishes and O tends to diminish with it (p. 38).

³² *Ibid.*

³³ *Elementary Political Economy*, p. 25.

³⁴ *Ib.*, p. 37.

10. Mill's View of 'Maximum Population' Criticised.

Even at this stage we can explode one dogmatic assertion of J. S. Mill in regard to the maximum population. In his *Principles*, Mill wrote in 1848, "The density of population necessary to enable mankind to obtain, in the greatest degree, all the advantages both of co-operation and of social intercourses has, in all the most populous countries, been attained."³⁵ Cannan's criticism based on the optimum theory is quite effective: "Mill looks on the degree of density which is required for the maximum productioners of industry as something fixed once for all, at 100, or 200, or some other number to the square mile. This is, of course, an eminently unscientific and unhistorical way of regarding the questions. The conditions under which men live, the extent of their knowledge and their ability to profit by their knowledge change from century to century, from year to year and even from day to day and almost every change affects in one way or another "the density of population necessary to enable mankind to obtain in the highest degree all the advantages both of co-operation and of social intercourse."³⁶

In the terms of the formula given above according to Mill, O is fixed once and for all; whereas according to Cannan's theory it is essentially a function of 'the progress of improvement.'³⁷ Mr. Dalton's remarks on the matter are also worth quoting: 'Some writers, including J. S. Mill have thought of O in relation to any given area, as constant through time. No competent modern Economist holds this view.' But there is still a tendency to suppose that though O is variable, it is less variable than A . In general, the truth is exactly the reverse. O is by nature more sensitive than A to changes in its economic environment. This is

³⁵ Book IV, Chapter VI, Section 2.

³⁶ *Theories, etc.*, p. 182.

³⁷ Robbins, *Essay*, p. 111.

most obviously true of large and sudden changes. O may rise very rapidly in periods of rapid economic progress and fall sharply and suddenly as the result of war and other Economic shocks and dislocations.³⁸

The Neo-Malthusian Fear of the Devil of Over-Population, a Superstition.

One important conclusion that may be drawn from these remarks of the 'London School' of Economists, is that we need not be afraid of the *dévil* 'disclosed by' Malthus. He can always be driven away by man's healthy activities in the economic sphere.

11. Difficulties in the Practical Application of the 'Optimum' Principle.

To complete the exposition of this *Economic* 'Principle of Population,' we have to take note of some difficulties in its application to practical affairs. Both the originator and his loyal disciples have called our attention to them. Thus Prof. Cannan says, 'Great caution must be exercised in applying the idea of a point of maximum return to the question of what is the most desirable population.' In the first place, it is very important not to fall into the error of supposing that the point of Maximum return remains permanently fixed.³⁹ This matter has been dealt with in the last section. One effect of this is: 'it is quite possible that the world was over-populated in some past age when there was not a tithe of the present number of people on the globe, and that all the same it is not over-populated now'⁴⁰ because, the point of maximum return might have been shifted in the meantime.

'Secondly,' writes Cannan, 'we must remember that popula-

³⁸ Dalton's *Essay*, p. 37.

³⁹ *Wealth*, pp. 59-60.

⁴⁰ *Ib.*

tion is not so agile in its movements as to be able to follow every shifting of the point of maximum return immediately' (p. 60). This is in direct variance with Malthus' second principle—that population invariably increases when the means of subsistence increases. On the other hand, mal-adjustment of population to production is always possible. It follows, therefore, that it is useless to condemn the population of any one point of time as too great or too small simply because if it were smaller or larger the returns to industry would be greater at that time. The population of any moment is dependent for its magnitude on the population of the past, and will in its return affect the population of the future We have to treat the ideal or optimum in regard to population as being the right movement (i.e., increase or decrease) of population rather than define it in reference to one particular point of time (p. 61). In these sentences, Professor Cannan warns us against the sophisms of Malthus and his followers who have based their conclusions on the narrow experience of their own times. Population and production are *dynamic* processes and the *static* conception of them, for which the English classical economists are largely responsible, must needs be erroneous.

'Thirdly, the general population theory should not be rashly applied to national or other local or tribal subdivisions of mankind. Of course it could be applied without any modification at all to a subdivision which was entirely isolated from all others, but in so far as movement of men and goods is possible between a subdivision and the outside world, it must take its share in the effects of the general movements' (pp. 61-62). In other words, the population problem has to be viewed as a *world problem*. Unfortunately, the Neo-Malthusian school is unable to take such a broad view of the question. For example, Mr. Wright devotes one chapter of his book to what he calls, 'International Population Problems.' But in it, he discusses the population problem only as it is found in each one of the big countries of

the world *separately*. He does not envisage the matter as one integral problem affecting the world as a whole.

The merit of the new school consists in its adopting the latter point of view. For example, Dalton has said: 'the present geographical distribution of the world's population is in many respects uneconomic and even when all relevant objections have been fully taken into account, there are many substantial migrations which it would be desirable to organise or stimulate.'⁴¹

12. One 'Negative' Inference from the Discussion and its Practical Value.

We may bring the exposition of the new theory to a close by calling attention to an 'important negative proposition' as Mr. Dalton calls it, viz., 'there is no ground for supposing that under modern conditions at any rate 'the play of economic forces' tends as a general rule to remove mal-adjustment of members and to equate actual members even approximately to the optimum. No 'natural harmony can be presumed in this matter' (p. 44). We may therefore deduce a *positive* conclusion from this. 'Our practical aim must be a harmony deliberately contrived. It is obvious that A may be controlled to some extent by deliberate policy especially as regards the number of new births and as regards migration. It is less obvious but true that A also may be influenced in the future by present policy' (p. 45).

It may also be added that as this policy must necessarily take a long time to show its effects, we should in the meantime, also take steps to improve the productive organization so as to make the 'optimum' approach the actual numbers. This is quite possible, for, as we have seen before, the optimum rises very rapidly in periods of rapid economic progress.⁴²

⁴¹ Dalton's *Essay*, p. 46.

⁴² See Section 10.

13. Summary.

The problem of population presents two aspects to the economist. There is first the question of the causes that determine the size of population and secondly that of the effect of the population on economic welfare. Malthus was mainly concerned with the former. He had only a very vague idea of the later question. Mill had a better idea of it, but his erroneous conception of the Law of Diminishing Returns and Agriculture prevented him from finding a satisfactory solution for it. His followers have fared no better. It is to Professor Cannan and his disciples Robbins and Dalton that we owe a fairly accurate answer. It is contained in what is called 'the optimum theory' or 'optimum density theory' of population and what may be better called *the economic 'principle of population.'* It states that there is for every country at a particular time an *optimum* number and that any variation from it is economically disadvantageous. This 'optimum' is closely dependent on the economic environment. Changes in the one will lead to changes in the other. Any divergence from the optimum is a *mal-adjustment*. Such a mal-adjustment can be remedied on the one hand by limiting the growth of actual population and on the other by improving the economic organization of the community.

14. Conclusion.

I should have very much liked to apply this doctrine to the problem of India's population. But as I have already greatly exceeded the limit imposed on us by our secretary, I have to give up the task. If the Conference should so decide, I shall be glad to go into the question at our next meeting. Failing that, it may perhaps be possible for me to discuss it in the pages of our journal.

THE ECONOMICS OF POPULATION—THE OPTIMUM THEORY

BY

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SUMMARY

The paper examines the criticisms urged against Malthus and Mill and the neo-classical economists by those of the London School and points out how the Optimum Theory falls far short of the claims set up on its behalf by Mr. Robbins.

The Economists of the London School in particular Mr. Lionel Robbins and Dr. Dalton have sought to show that economic thought on the theory of population was confused and unscientific until Prof. Cannan stated the theory which has come to be known as the Optimum Theory. Mr. Robbins repeats the criticisms urged by Prof. Cannan against Malthus and Mill, and tells us that Sidgwick had an occasional glimpse of the truth, though he also belongs to the "dark ages with Malthus and the Classics and their fodder maxima."¹ The publication of Cannan's 'clear and straightforward' theory made no difference to Marshall.² Though Professor Carver and Mr. Harold Wright still persist in using the older terminology,³ and even Prof. Carr-Saunders whose books "have perhaps done more than anything else to popularise the

¹ *London Essays in Economics*, p. 114.

² *Ib.*, p. 115.

³ *Ib.*, p. 119.

(optimum) theory " still retains some of " the dead wood of earlier discussion," yet, Mr. Robbins finds it " fairly safe to say that now-a-days this theory is pretty generally accepted."⁴ Dr. Dalton's Paper in *Economica* (March, 1928) is less polemic and deals with the difficulties in the application of the optimum theory to practical questions and to the detection and measurement of the phenomena of over-population and under-population. Our object in this paper is to study the specific contributions made by the new theory and incidentally to see how far the attack on the classical and neo-classical writers briefly referred to above is justified.

First let us consider the objections to Malthus. Prof. Cannan has said—" The question of population with Malthus was not, as it is with us a question of density of population and productiveness of industry, but a question about the comparative rapidity of the increase of population and of the increase of the annual produce of food."⁵ He has also affirmed that the Theory of Population was not based on the Law of Diminishing Returns until Mill expounded it in his *Principles*. Mr. Robbins has echoed these criticisms.⁶ The second criticism may be taken up first. If we direct our attention not to the name of the Law of Diminishing Returns but to its real substance, it is hard to understand the theory of Malthus in any sense that does not imply a grasp of the tendency to diminishing returns in agriculture. Even his celebrated contrast between the geometrical and arithmetical ratios in which population and subsistence increase cannot be understood on any other basis. As Marshall has pointed out, it was his way of stating the substance of the law as it applied, in his opinion, to his country in his generation. " Doubled labour might give doubled produce: but quadrupled labour would hardly treble it:

⁴ *Ib.*, p. 119.

⁵ *Theories of Production and Distribution*, p. 138.

⁶ *London Essays*, pp. 140—5.

octupled labour would not quadruple it.”⁷ This statement is the foundation of his whole theory; it is of course open to any one either to understand this as implying a grasp of the substantial part of the Law of Diminishing Returns or to deny him such knowledge because he does not use the modern name of the law. But this is not all. Prof. Cannan himself has stated: “Malthus may, perhaps, display some inkling of it (the Law of Diminishing Returns) here and there in the first edition. In the second he certainly uses one of the principal ideas on which it is based as an incidental and subsidiary argument. In the later editions its existence is frequently recognised.”⁸

The other statement about Malthus is perfectly true. As Mr. Robbins says, “there is no evidence that he ever thought of returns per head in the modern sense.” He certainly viewed the question as a problem of food-supply in the exposition of the theory, especially in the first edition of his *Essay*. But then it should be remembered that the argument as it originally developed in his mind was intended as an exposition of the obstacles to the perfectibility of society. In the later editions even when this argument against perfectibility receded to the background and Malthus got interested in the subject for itself, he retained the framework of his argument as it was originally conceived by him. But that does not mean that Malthus was totally ignorant of the broader economic aspects of the population problem in its relation to general welfare. He wrote for instance—“In most countries, among the lower classes of people, there appears to be something like a standard of wretchedness, a point below which they will not continue to marry and propagate their species. This standard is different in different countries and is formed by various concurring circumstances of soil, climate, government, degree of knowledge and civilisation, etc. The principal circum-

⁷ Marshall, *Principles*, p. 179, note 1.

⁸ *Theories*, p. 144.

stances which contribute to raise it are liberty, security of property, the diffusion of knowledge and a taste for the conveniences and comforts of life."⁹ In fact careful reading of the last book of the later editions of the *Essay* will convince any one of what Prof. Carver has called 'the inherent optimism of Malthusianism.'¹⁰ Even though Malthus devoted the bulk of his essay to a consideration of the problem of population in relation to food-supply, he took care to say with some emphasis that "The desirable thing, with a view to the happiness of the common people, seems to be that their habitual food should be dear, and their wages regulated by it" and he passionately opposed measures calculated to lower standards with a view to promoting foreign trade. In all this Malthus pointed the way to the Economics of Welfare more clearly than any other writer of his time. Certainly the problem of population is not merely a problem of food-supply; and Malthus knew that. But the problem of food-supply is not so negligible taken by itself and in Malthus' time it gave him more room for anxious thinking than it perhaps does to us in our day; though even now apprehension of possible over-population a century or more hence, in relation to the supply of food that is likely to be then available, is not altogether unknown.¹¹ Generally speaking, the optimism of the present time is based on some factors that are new. Conditions of world-trade with the prevailing facilities of rapid transport appear to have removed all visible limits to the growth of population in any particular country taken by itself. Statistical studies relating to more advanced countries suggest the possibility that the growth of population is a 'biologically self-regulating process'; at any rate that the rate of increase tends to grow smaller as population increases.¹² But at the same time it may be

⁹ *Essay*, Bk. IV, Ch. IX.

¹⁰ *Distribution*, p. 178.

¹¹ See, e.g., Marshall, *Principles*, 180, n. 1; and Carr-Saunders, *Population*, p. 68.

¹² Yule, *Growth of Population*, *Journal of the Royal Statistical Society*, Jan., Jan., 1925.

that this optimism is groundless and that "unfortunately for the human race the essential validity of the Malthusian principle of population is not destroyed by the substitution of an accurate account of the growth of food-supply for the fallacious arithmetical ratio."¹³

Mr. Robbins however despises this way of looking at the question because in his opinion it is based on the Law of Diminishing Returns in Agriculture which has now collapsed in its dynamic aspect. As has been observed by Marshall,¹⁴ Ricardo's critics are right in pointing out that he underrated the indirect advantages which a growing population offers to agriculture. But it will not be easy to substantiate Mr. Robbins' criticism of 'the Ricardians,' viz.—"From the fact that if, at any time, the population exceeds a certain definite size, the additional work it is able to do will not be commensurately productive, they quite illegitimately inferred that, as population actually grows, so the return to its efforts must diminish."¹⁵ The inference is surely legitimate other things being equal, though not otherwise. And one doubts if Mr. Robbins is serious when he permits himself to say: "From the *histiores raisonnées* of Ricardo and West, it would be quite justifiable to infer that, once the world was populated at all, any increase in population was a disadvantage—at any rate, so far as agriculture was concerned. Even from an economic point of view, the advent of Eve was a misfortune!"¹⁶ But the real point urged by Mr. Robbins however lies elsewhere. He not only opposes the view that returns necessarily diminish with the growth of numbers which he ascribes to the Ricardians, but he denies the existence of a tendency to diminishing returns in agriculture in any sense in which it is not present in manufacture. And this is the reason why he refuses to attach any importance to the question

¹³ Quote—Carr-Saunders, *Population*, p. 24.

¹⁴ *Principles*, p. 165.

¹⁵ *London Essays*, p. 108.

¹⁶ *Ib.*

of food-supply taken by itself. In this, as generally, he follows and expounds Prof. Cannan's views.

Prof. Cannan tosses aside the usual contrast between agriculture and manufactures by saying—"Turgot's law is just as true of manufactures as of agriculture. At any given time (or if the reader prefers, circumstances remaining unchanged) increase of labour up to a certain point is attended by increasing proportionate returns (called for short increasing returns) and beyond that point further increase of labour is attended by diminishing proportionate returns (called for short diminishing returns). Mankind cannot produce an unlimited amount of calico any more than an unlimited amount of wheat" and so on. Prof. Cannan also asserts: "The most we can say in contrasting agriculture and manufacture is that the advantages of producing a large aggregate quantity and therefore the advantages of a larger population to produce and consume the large quantity are more obvious in manufacture than in agriculture."¹⁷ If it is only a question of the advantages of a large population being more obvious in the one case than in other, there cannot be the least doubt that the economic contrast between agriculture and manufactures is wrong. But if, on the other hand, a large population creates difficult problems of food-supply at the same time that it makes possible large-scale manufactures and the economies attendant on them, then indeed the contrast must retain a fundamental place in any systematic analysis of economic principles. It is not easy to understand what Prof. Cannan means by his rhetorical statement about mankind and unlimited amounts of calico and wheat. This way of stating the matter obscures the issue considerably. Those who differ from Prof. Cannan hold that with a growing population, it is found, other things being equal, that it becomes increasingly more difficult to produce the necessary supply of foodstuffs and raw-materials while it generally becomes easier to supply manufactured

¹⁷ *Wealth*, pp. 67—9.

goods. They also feel that improvements in agriculture and extractive industry have as a matter of fact not been commensurate with progress in manufactures. They further assume that the future is not likely to be very different from the past in this respect. Prof. Carver who has done most to extend the application of the Law of Diminishing Returns states the position thus: "in the manufacturing of any article, more labour and capital could be concentrated upon a given piece of land before the Law of Diminishing Returns begins to be encountered than could be used on the same land in the growing of most crops." In other words, to find agricultural employment for a given number of persons you want much more land than to employ them in any manufacture; and the land that is available for all uses is limited. It may be held that this need not always be so, and that agriculture in future may so develop as to give scope for as concentrated an employment of labour and capital as is now furnished by manufactures and then the whole basis of the Law of Diminishing Returns as applied to agriculture will give way. But the supposition involved in the argument is too remote to be of interest under present conditions. And till that supposition materialises the statement of Prof. Cannan that "if we measure returns from the starting point of *nil* suggested by the historical progress of population and assumed by Malthus, West and Ricardo in 1814, we can say that in both agriculture and manufacture returns increase up to a certain point, and beyond that point they decrease"—this statement, in spite of its logical correctness, must be taken to slur over the main difference between agriculture and manufacture by failing to relate to human welfare the point beyond which returns begin to diminish in either case. Far more relevant is Prof. Carr-Saunders when he writes: "industry is so responsive to division of labour and mass production that it is the increasing cost of food rather than decreasing returns to industry that is likely to give the whole situation an unfavourable aspect."¹⁸

¹⁸ *Population*, p. 30.

Mill evinced in his discussion of population a very clear grasp of the relations between population and the progress of agriculture and the arts. He did not use the term 'optimum' but it has been suggested that he "was the father, if not the actual christener, of the Optimum Theory of Population."¹⁹ Mr. Robbins is not prepared to concede this; but the question of priority may be left on one side. Mr. Robbins seems however to hold also that Mill was essentially wrong in his conception of the relation of population to economic progress. Says Mr. Robbins: "he has no idea of an improvement which will make an increase in numbers desirable, or which cannot come about without an increase in numbers." Again, "Mill's optimum was fixed once and for all, and is unaffected by any improvement whatever"²⁰ and this is sought to be established by representing Mill as saying something he did not say. The general trend of Mill's argument in Book I, Ch. XIII, section 2 is that owing to diminishing returns in agriculture, and owing to the rate at which population can increase if it is not restrained, there is need for restraint being exercised at all stages of civilisation, except the very lowest. Towards the end of the section he makes an application of this argument to the case of England after the Industrial Revolution. He states the opinion that even the great mechanical inventions of Watt, Arkwright and their contemporaries had only just increased 'the return to labour as fast as the population' because of the 'inherent power of multiplication in the human species' and winds up his argument by more general considerations to the effect that in all stages of civilisation, if there had been more restraint than there actually was on the growth of population, 'the new ground wrung from nature by the improvements would not have all been used up in the support of mere numbers,' and 'there would have been a greater

¹⁹ *London Essays*, p. 109.

²⁰ See also Dalton, *Economica*, March, 1928, p. 37.

produce per head of the population.' Mill in other words held, he may be right or wrong on the question of fact, that practically speaking, in all periods and countries known to history, overpopulation was ever present either actually or as an imminent possibility, which is quite different from implying what Mr. Robbins understands Mill as implying, viz., that "the railways, the telegraphs and the changes in ocean transports, which were being introduced just when the *Principles* were being written, would have been possible with a population stationary since a 'very' or 'rather' early stage in history!" Mill's meaning is to be gathered very clearly from his statements: "Whether, at the present day or at any other time, the produce of industry proportionally to the labour employed, is increasing or diminishing, and the average condition of the people improving or deteriorating, depends upon whether population is advancing faster than improvement, or improvement than population." "Improvement must here be understood in a wide sense, including not only new industrial inventions, or an extended use of those already known, but improvements in institutions, education, opinions and human affairs generally, provided they tend, as almost all improvements do, to give new motives or new facilities to production." "As a matter of fact, at some periods the progress of population has been the more rapid of the two, at others that of improvement." "But though improvement may during a certain space of time keep up with, or even surpass, the actual increase of population, it assuredly never comes up to the rate of increase of which population is capable." It cannot be doubted that Mill knew clearly the interaction between numbers and improvement, though he did not speak of the point of maximum return and the optimum number. And it may be noted that, after all, the optimum is the most desirable number from the point of view of return per head of population; and Mill certainly knew that this number depends on and varies with the progress of 'improvements' instead of being 'fixed once and for all.'

After all the real test of any concept in a social science is the extent to which it serves as an aid in the analysis of practical questions. We shall do well to see how the idea of the optimum fares under this test. Moderate advocates of the idea like Prof. Carr-Saunders do not imply that the concept is anything more than a carrying forward to a higher stage of clear quantitative statement of ideas that were not altogether unknown to the older economists but were stated by them in the rather vague and general way in which they stated all the truths of economic science. Thus the distinction between the theoretically possible increase, the actually possible increase and the desirable increase, and the measurement of the deviation of the actual increase from the desirable increase in the light of the changes in real income *per capita* of the population, all constitute only a more precise formulation, a crystallisation, so to say, of ideas till recently held in solution. Mr. Carr-Saunders thinks that a historical investigation of the question warrants the conclusion that population has always fallen short of the actually possible increase (by which he means the increase that could be maintained, but only just maintained) and always approached the desirable increase (optimum), so that according to him standards have been continuously rising. Whatever the validity of the conclusion he draws from the historical study,²¹ it is clear that he retains the Malthusian view of the population problem as a problem of food-supply and relates it to the optimum theory which gives a definite expression to the problem as it has taken shape under modern conditions. And it may be well to remember that there are yet countries where there is no standard much higher than a rather low level of subsistence and "where (as in India or China) the structure of society is simple and the standard of life capable of almost infinite degradation without destruction of the social order."²²

²¹ Cf., para 13 of Dr. Dalton's Paper in *Economica*, March, '28, p. 44.

²² D. H. Robertson, *Economica*, Vol. III, p. 203.

But Mr. Robbins will have nothing to do with this 'fodder maximum' and Dr. Dalton thinks that the theory of population, as it has been understood so far, 'even when it looks its best, still looks intellectually untidy' and proceeds to construct a formula which, while it looks neat enough, does not as will presently appear, take us very far. Mr. Robbins has pointed out very clearly that the optimum point cannot be postulated without a whole host of static assumptions including constancy of such factors as the amount and distribution of capital, the economic quality of the labourer and the degree of his willingness to work, even the demand for particular commodities. "There is no 'other factor' in the complex economic life of a community, which we do not assume to be unchanging when we postulate the existence of our optimum."²³ The result is that no definite statements can be made as to the relation in which the actual numbers at any time stand with reference to the optimum. Mr. Robbins says: "The formulation of the Optimum Theory is a definite advance in knowledge. It enables us to understand hypothetically the influence of numbers on production. It enables us to refute certain popular errors"²⁴ which looks rather tame after the vigorous criticism of the great economists who lived before the enlightenment of the Optimum Theory. And Dr. Dalton defines the optimum population "as that which gives the maximum income per head" and as often happens in such cases, the steps by which the definition is arrived at are infinitely more instructive than the conclusion to which they lead. He then proposes to measure the degree of maladjustment (M) by the ratio $\frac{A-O}{O}$ where A is the actual and O the optimum population. The theory of the determinants of O as expounded by Prof. Cannan is thus summed up by Dr. Dalton: "O is determined, for any area, by the interplay, under the influence of hypothetically changing numbers, of two factors, natural resources per head and facilities for economic co-operation, including

²³ *London Essays*, p. 123.

²⁴ *Ib.*, p. 124.

co-operation with the inhabitants of other areas. As A increases hypothetically from Zero up to O , the first factor diminishes, but the second increases and outweighs it; as A increases hypothetically beyond O , the first factor continues to diminish and outweighs any further increases in the second." In what way does this statement differ, except in its form, from the 'neo-classical' statements that up to certain stage increasing numbers are desirable, that is, so long as diminishing returns in agriculture and extractive industries do not begin to act so sharply as entirely to counteract and outweigh the advantages of increasing returns in manufacture; and that, beyond that stage, increase in numbers results in overpopulation.²⁵ The new theory groups together the diminishing returns in extractive industries under the phrase 'natural resources per head,' and the rest (manufacture and commerce) under "facilities for economic co-operation, including co-operation with the inhabitants of other areas." But this is, as will be seen, the static determination of O . The difficulties of the calculation of O under dynamic conditions which are alone real are very great, and Dr. Dalton sets them forth fully in para 12 of his Paper, and we are led to the conclusion that to many questions, "more than one reasonable answer is often possible, and more than one exact conception of the optimum is, therefore, tenable, according to the purpose of the particular investigations we contemplate." Thus the whole conception of optimum seems to lack the definiteness and precision which seems to be promised to us when Mr. Robbins finds fault with Mill for being dimly aware of 'an optimum' which is not 'the optimum of modern theory.'²⁶ In no way discouraged by this difficulty in the practical applications of the optimum concept, Dr. Dalton proceeds to suggest a positive policy and says: "If the magnitude of A at some future date can be approximately forecasted, a programme of economic

²⁵ Cf., Carr-Saunders, *Population*, pp. 30-1.

²⁶ *London Essays*, p. 111.

development can be planned now, which will bring O nearer to A at that date than if we go forward blindly.' How this is to be attempted with any chance of success, so long as O is so inconstant and intangible as it is, we are not told. Dr. Dalton's discussion of the more practical issues of migration, age distribution of labourers, birth control, family allowances, and the effects of changes in distribution of income on productivity, though it is conducted with the aid of the new symbols, proceeds along the high-roads of neo-classical economics.

PENDING PROBLEMS OF INDIAN PUBLIC FINANCE

BY

T. K. SHAHANI,

Justice is our Arbiter.

The close relationship between Economics and Politics is, perhaps, nowhere better illustrated than in the Science of Public Finance, it has to take the fullest account of socio-economic conditions prevailing in the unit of society to which the system belongs; and any indifference to real changes in those conditions sooner or later throws the financial system so much out of joint as to render it odious, unbearable and even responsible for revolutions that topple down the body-politic itself. This may sound as a mere truism, though, it is a fact, that different countries have from time to time needed forcible reminders of this self-evident truth; and only a timely adjustment of the financial system to the prevailing economic and political order has averted the impending catastrophe. One cannot help thinking that Indian statesmanship at this juncture needs all the far-sightedness, the depth of view and the courage to put the financial system of the country in absolute harmony with our socio-economic conditions evolved by a century of peace and effective government in India; and this harmonisation again, is possible only if utmost regard is paid to the canon of justice in the forming of the tax system in the country. Justice is proudly upheld as the fundamental principle of the British Government in India; and all that the theorist in public finance now asks is the extension of the application of this principle of justice to the financial system of India, admittedly the fulcrum of the entire machinery of the Indian Government. This

Paper proposes to examine the operation of the principle of justice in our present-day financial system in two distinct parts: (a) Central and Provincial financial relations *or* the Tax-Jurisdiction in India with incidental reference to the exceedingly defective application of the faculty (ability to pay) theory in India; (b) the Central Exchequer and the Indian State subjects. Bearing in mind the limitations of space imposed on Papers offered at this Conference the writer has to be content with a very brief treatment of the subject.

(A) CENTRAL AND PROVINCIAL SYSTEMS OF TAXATION IN INDIA
or THE PROBLEM OF THE TAX-JURISDICTION.

- (i) Segregation of sources of revenue the right principle:
the only praise-worthy part of the present system.

Lord Mayo's Government in 1871 simply faced the inevitable when they took the initial step towards decentralising Indian Finance and Administration by making the Provinces not mere agents but subordinate partners in the Government of the country. Localism in the shape of a Province or a State had been always there in the country; and the subject population in the greater part of the country was not quite unfamiliar with a vague idea of an over-lord at Delhi besides the immediate lord. Attempts at thorough centralisation had never been successful in the past for one reason or another; and British statesmanship traditionally linked with sound finance found in financial stringency the immediate occasion for departing from an untenable position. Successive stages of fairly quickened process of financial, legislative and administrative decentralisation gave the Provinces a political status and entity of their own—not far short of substantial and indispensable partnership in the scheme of Government; and though in some cases absolute homogeneity of race, religion and language was not quite visible, a fair share of identity of interests and a pretty long period of conformity to the requirements of administration had gradually familiarised them with a sense of Provincial

patriotism that now took the place of old attachment to the procession of fleeting dynasties. When the Montagu-Chelmsford Scheme courageously gave the Province a position in government almost analogous to the constituent parts of a federation, the Province had really already reached that state of growth where, within the orbit allocated to it for its functions, it could not have been conveniently held in leading strings any more by any aged mother. Further, with the true instinct and long-cherished tradition of the Englishman identifying freedom with the right to grant taxes, the framers of the Act of 1919 so devised the financial scheme for the Provinces as to free them from dependence on any extraneous body but to fix the responsibility of the Provincial Governments to their own tax-payer through the regular machinery of a self-contained budgetary arrangement. If in the Local Self-Government the citizen had already found an expression of autonomy in a comparatively modest sphere of homely functions, the Provincial Government was meant to unfold to the citizen a far larger and more stimulating sphere of governmental activities in which his power of voting supplies would impart to him all the consciousness of active participation in the Government of an autonomous state. It may now be a fashion to decry the Montagu scheme. Provincial Governments like Bombay in their desperate plight of financial stringency like to call the device of clean-cut tax jurisdiction 'theoretic,' 'academic,' 'sentimental,' etc., etc. This is doing very scant justice to the laudable intentions of the statesmanship of the day that bore in mind the political evolution of the Province and further proposed to elevate it to the position of almost a sovereign state where Parliamentary, i.e., responsible government may be acclimatized at least partly through the vehicle of public finance by making the power of voting supplies the arbiter of the fate of the Provincial Government. In such an arrangement there could be really no room either for assignment of revenue from one Government to another for a division of the yield of revenue under any head or heads, as the intention was to make each sphere of

Government live within its own, making additions or alterations within its own allocated field—and only by the agreement of its own legislature. Provincial contributions were indeed, a weak spot in the arrangement which had to go at the earliest opportunity. For the rest the application of the principle of Segregation of sources of revenue was perfectly sound, as it was the most understandable way of making a genuine attempt to transplant the distinguishing features of English Parliamentary Government in the Indian Provinces. If the social, political and administrative growth of the country made either a return to the old centralised unitary form of Government impossible or the avoidance of friction and sense of dependence incumbent, complete financial autonomy for the Province in general was a very essential part of the scheme. It behoves us to appraise the scheme most impartially and give the recognition it deserves.

The persistent demand of the Government of Bombay for a half-and-half division in the yield of income-tax and super-tax gathered by the Central Government from the Bombay Presidency seems to be slavishly based on Prof. Seligman's theories which advocate the collection of all Income-tax, Inheritance-tax and Corporation-tax by the Central Government because of administrative convenience and the difficulty of localising these burdens. Indian conditions do not really offer the same difficulties. Besides the political significance of the Provincial Financial autonomy which necessitates a self-contained budget adjustable only by the Provincial legislature and also serves as the best weapon of control over the Provincial Executive was never in the mind of Prof. Seligman. Further, in the matter of the equitable division of the yield, acceptable to all Provinces, obviously, there are difficulties which have so far prevented Federal countries from having recourse to this device.

- (ii) When the scheme failed: Scant regard for justice—No provision for Adequacy of Revenue in relation to Functions performed.

While the grant of a self-contained budgetary arrangement in the Province was based on a sound principle, unfortunately, the details of the scheme of Financial Settlement,—obviously the result of hurried unscientific thought, paid little regard to the fundamental principle of justice,—justice as between the Central Government and the new fully-statured Provinces, and again, justice as between one Province and another. The tale of the financial woe so often heard from Bengal, Bombay and Bihar in the course of the last eight years might well have been avoided and the Dyarchical form of Provincial Government might not have been declared quite a failure in some provinces, if only a more careful note had been taken of the principle of justice in finance which would in its turn have easily shown the ways and means to handle satisfactorily all the difficulties likely to be met in working a scheme of federal finance in India. When in any country a centralised, unitary Government has given way to two fairly well-demarcated spheres of Government, each responsible for an allocated orbit of functions with the citizen's welfare in both the spheres of Government as the goal, justice, in other words, sound Finance demands for the fulfilment of the functions of each sphere (a) Adequacy of revenue resources; (b) Administratively handy in this sense that each Government obtains revenues as far as possible out of its own orbit of functions. Justice and economy combined will be the distinguishing mark of such a scheme. The citizen's tax-paying capacity will then be tapped in such a manner as to bring about an equitable distribution of funds,—each sphere to get in *proportion* to what is expected of it in the matter of functions and that, again, as far as possible, accruing out of its own scope of governmental activity. Neither the starving of the one nor the glutting of the other would be permissible under the operation of the joint action of the canons of Justice and Economy. Now a demarcation of functions like any other human contrivance admits neither of finality nor of perfection. Possibly adjustments of improvements may take place from time to time. But a consensus

of opinion in states of similar conditions has allotted to the Central Government functions that make for the safety the preservation, the unity, integrity and homogeneity of the nation best illustrated in its Defence, Foreign Relations, Fiscal Policy, Credit, Communications and the smoothing-down of inter-provincial difficulties,—leaving for the Provinces a wide field for the discharge of developmental functions like Education, Health and Sanitation, Forest and Agricultural Production. Justice with an eye to the *nature* of the functions of each sphere would accord to the Central Government absolute certainty of revenue coupled with a *modest share of elasticity* in revenue, and to the Province a distinctly more *generous measure of elasticity* of revenue to meet its necessarily expanding expenditure on nation-building functions. If we are forging to the front for peace and progress—intending to give man a fair share of his heritage in the world Provincial functions like Education, Health and Agriculture with all their concomitants will need increasing expenditure,—productive in the best sense of the word, to be met out of some spontaneously and easily expanding head of revenue, largely derivable from the orbit of their own activities. This allocation of a highly elastic head of revenue to the Provinces is, however, not easily reconcilable with the claims of the Central Government which though normally reckoning with a comparatively inelastic expenditure has always to keep in mind the question of emergency financing to meet the contingency of a war. This contingency has sometimes so cruelly obsessed the imagination of the statesmen to compel them to drain even normally the best of the expanding sources of revenue into the Central Exchequer which when embarrassed with unwarranted surpluses has recourse either to the centralisation of some provincial functions or to the disbursing of doles and making assignments of revenue to the Provincial Exchequer. We in India have to see how best we can preserve and improve upon the hard-earned position of the province—politically and administratively—without letting the Central Government encroach upon the Provincial functions and at the

same time to see how best we can keep our national Sovereign State of India financially competent to discharge its necessary functions of safety, unity and integrity of the country including the implications of exigency financiering called up by a war. Assuming, then, that the present division of functions will not be disturbed and that for the Provincial sphere of functions a responsible representative government will operate, one may make an attempt to show how the errors of the last financial settlement may be rectified guaranteeing *adequacy* of funds to both spheres based on certainty of revenue and a moderate share of elasticity along with provision for emergency financiering in the case of the Central Government and (c) a generous measure of elasticity of revenue for Provinces, each sphere of Government finding funds, as far as possible, out of the very orbit of functions it has to perform.

(iii) The functions and the allocation of Heads of Revenue:

(a) *Central: Excise analysed.*

As the essential function of the Central Government is to provide for the Safety, the Unity and the Integrity of the Country, Defence, Foreign Relations, Fiscal Policy, Credit, Currency and Communication, are its special preserve. In addition to these comes the all-important function of collecting and publishing All-India statistics on various subjects and of establishing bureaux for disseminating information in the Provinces and the country at large on all matters of public welfare. Its obvious sources of revenue out of the very functions it performs are:—Currency and Credit Profits, Railways, Posts and Telegraphs, and the entire field of Customs and Excise Revenue the latter including all dutiable articles produced and consumed in the country, the extension or the limitation of the field depending from time to time on a variety of economic and social circumstances. With Credit, Currency and Communication as on the whole a productive and fairly expanding head of Revenue and the fruitful field of Customs and Excise generally capable of showing elasticity in yield, the normally

expanding expenditure of the Central Government ought ordinarily to be met out of this sufficiently full sphere of its activity. In this connection, it is necessary to point out that Excise being the counter-part of Customs, both, *in their entirety*, fall absolutely within the purview of the Central Government. For instance, theoretically it is neither permissible to a Provincial Government to encroach upon Customs Revenue on foreign imported liquors under the guise of a heavy vend or licence-fee (as some Provincial Governments in their financial desperation are, at present, obliged to do), nor is it thinkable that excise on country liquors can be made a provincial head of revenue despite the fact of an artificially evolved administrative arrangement of confining the product of each province to itself. 'Restrictive' Excise which aims at the realisation of the maximum of revenue from the minimum of consumption in the case of country-made intoxicants is a contrivance of exceedingly doubtful efficacy so long as it has a sinister and a most significant counter-part in the increased customs revenue caused by the increasing demand for foreign imported beers and cheap spirits as one substitute, and the alarmingly increasing competition of illicit distiller as another set-off. With the foreign imports, the illicit brewer and the Indian State border lines being there, 'rationing' or restricting the number of shops do not carry us an inch forward in the direction of prohibition. The question of consumption of any commodity which in some form or other is both produced in the country and imported from abroad and at the same time admits of smuggling from the territories of His Majesty's allies in India is, obviously, an All-India affair to be regulated by the Central Government under the central operation of customs and excise. Even if administratively considered there seems to be no great difficulty in making Excise central, as the findings and recommendations of the Excise Committee of 1905-1906 have slowly and steadily set all the provinces on almost a uniform system of working the department, which again, in every province is already responsible for the Central Salt Excise as well.

If outright prohibition is to be sought, it must emerge as a national policy impartially applied to all intoxicants,—country-made or foreign imports; and the Central Exchequer is to envisage in its entirety the financial consequences of the total loss of revenue therefrom, and the cost of preventive measures which should make prohibition a success.

Excise—Revenue or 'Restrictive' can only be properly contemplated when viewed along with Customs, the nature of the article consumed being fundamentally the same; and, then, whether as a measure of policy or as a means of raising funds, its proper place is in the national and not the local Exchequer. If in the first measures of Financial Decentralisation, Excise on country intoxicants (opium excluded), more or less in a haphazard manner found a place among the provincial heads of revenue, this clumsy, unscientific and vexatious arrangement need not continue to mar the Indian financial system. Its 'Restrictive' virtue was only a very much later discovery made in response to the call of the Temperance movement which is clearly a one-sided affair if substitutes and smugglers are left out of account. It is possible that when country-liquor Industry in Government or licensed distilleries is properly handled and the trade is given a more presentable look, the respectability of the produce may not be at much discount when compared with its foreign brother. Then, if the ban of prohibition must fall, justice can allow for no partiality to the foreigner which renders a socially well-meant measure absolutely nugatory; and if the time is ripe for the sacrifice of this revenue, the *general* tax-paying capacity, possibly even under excise, may have improved so substantially as to make the measure financially possible. For the present, however, Customs and all Excise including that on country-made intoxicants, with Tobacco and Tea as the immediately available feeders, and Salt-tax normally very low but good as a balancer, in cases of emergency should form no mean stronghold of the Central Exchequer. They come under the fiscal policy, trade regulations and the industrial growth of

the country, all of which are essentially the functions of the Central Government; and if, in the fullness of time, large-sized industrial and commercial undertakings flourish, the corporation tax under the heading of Excise may also well emerge as another suitable head of central revenue. As for the emergency financiering of the Central Government, if expansions under Customs, Excise and Communications do not suffice, the field of income-tax and super-tax (normally a provincial asset) may be encroached upon for an extra impost, preferably in the form of some percentage or addition to the existing burden to meet the extraordinary requirement of the Central Government.

(b) *Provincial: The Income Tax.*

To fortify the financial position of the Central Government was naturally a first concern of the framers of the Act of 1919. The scheme sketched above while no less solicitous of the financial certainty and independence of the Central Government leaving it in possession of a gradually and spontaneously growing revenue *adequate* for all its acknowledged functions, reserves for the provinces one really *elastic* head of revenue, viz., income-tax coupled with land revenue for all their developmental needs. The political and financial importance of this tax is immense. It is a direct tax of which the tax-payer has the fullest consciousness and by paying which he will insist on having his money's worth from the Executive Government of the Province. It is essentially a middle-class tax falling upon the *intelligentsia* of the Province who will exact the fullest responsibility of the Governors to the governed through the agency of this head of revenue. Its elasticity is undoubted, as quite apart from the boom in trade and industry that may occasionally swell it, an increase of a pie or pice per rupee in response to the call of the Executive to meet any genuinely developmental need will without much difficulty balance the budget. In Provinces where income from agriculture bulks most largely and that also individually in substantial figures the popular

representative Provincial legislatures will not take long to bring it into line with incomes derived from trade, industry, professions or services and make agricultural income bear its just and equitable burden of public imposts. It will not be the 'foreign' or autocratic Government of India that will be faced with the problem of revising the oft-quoted solemn pledges of permanent land settlement, or with the problem of fairly and squarely taxing the *taxable*, the holders of vast landed estates who, beyond paying the pittance of salt-tax and the land revenue *pro rata* per acre on the same basis as the poor, starving, struggling little cultivator of a couple of acres of land, have, hitherto, known no public burden but only all the sweets of a privileged position. The Provincial popular legislature is the only proper place for redressing this age-long iniquity between man and man in the system of Indian taxation. Income-tax as a Provincial head of revenue will, sooner or later, quite impartially extend its operation to all spheres of income with due allowance for earned and unearned increments, progression, exemption, etc., as is the feature of the system of income-tax in other administratively and socially well-developed countries. The argument of *administrative* unsuitability of income-tax as a Provincial head on the score of the difficulty of *localising* industrial and commercial incomes has little force in India, as it is an acknowledged fact that 80 to 90 p.c. of incomes shown by the individual province are really earned there;—and, for the rest, even where an exact set-off between a Province and a Province is not possible the principle either of domicile or of taxing at the source can by the agreement between provinces be conveniently enforced. The war of income-tax rates is *unthinkable* in India, as each province is climatically or physiographically marked out for peculiar forms of industrial expansion which makes little room for provincial rivalry; and if, at any distant date, such a phenomenon emerges, the Central Government under its undoubted function of smoothing down inter-provincial difficulties can determine the maxima and the minima of rates for income-tax,

though in the interest of the elasticity of provincial revenue such an interference would not be quite welcome.

(iv) Adequacy of revenue for both spheres of Government.

The surrender of all Excise to the Central Government and the appropriation of all income-tax and super-tax by the provinces form the essential parts of a revision in the matter of Financial Relations. The reservation of a Corporation tax for the Central and the Inheritance or Succession duties for the Provincial will make for some more elbow-room if further expansion of revenue is found necessary. As for the exigency financiering which the Central Government has to contemplate in the event of a costly war, the machinery of Provincial Income-tax and Super-tax should be available for an extra impost as a war measure, besides whatever increase Customs, Excise and Communications can bear. General Stamps as distinguished from Judicial Stamps come absolutely within the purview of the Central Government but of which it *may* make a gift to backward Provinces to put them on their feet. Equity may step in where justice can go no further: but if there is any weight in the legal maxim "He who comes to Equity must come with clean hands," it will have to be demanded from the Province concerned that it must mitigate iniquity within its own jurisdiction by subjecting the vast landed interest to an absolutely fair and equitable burden of public imposts. If income from agriculture is brought into line with income from other sources for the purpose of income-tax and super-tax operation, no Province in India will find itself hard put to it to meet its growing needs; and if, by any chance it ever does, no sensible Central Government will withhold from it the gift of revenue under General Stamps.

(v) Excise *versus* Income-tax.

Does justice permit the surrender of Excise on intoxicants for income-tax in the provincial budget? Will not this leave some

provinces all the poorer for this exchange? These questions will necessitate a careful study and serious thought as the result of which the present writer feels inclined to face with equanimity even the immediate consequences of his proposals. 'Restrictive' Excise on intoxicants is admittedly an inelastic source of revenue. If 'rationing' and 'sliding scale' arrangements persist and both the imports of foreign liquors and the nefarious practices of the illicit distiller continue to remain active, Liquor Excise will inevitably be a dwindling head of revenue. Even Bihar with its very low rate of still-head duty which makes little room for the trade of the smuggler or the foreign importer is now said to be seriously apprehending shrinkages of revenue under this head. The revenue has never come in for a blessing in any Province in India; its application for expenditure on education, at least, has evoked no grateful appreciation of the moralist. It will not do for the provinces to rely for their developmental work on this broken reed. As contrasted with the present and future position of Liquor Excise, the income-tax offers a growing field for revenue expansion if the uniformity of rates, exemptions, progression and differentiation is not rigidly enforced in all provinces. Given a certain latitude as in the case of provinces in some other Federations every Indian Province can fall upon this head as its ultimate reservoir for supplying the necessary public funds. Even if Bihar—apparently the Province to be immediately hit hard by the scheme proposed in this Paper—*willed* to remove inequality in the matter of taxing large incomes from land and lowered the exemption limit consistent with the standard of its middle-class living and paid due regard to the possibilities of progression in income-tax and super-tax, the difficulties of balancing its budget will not perhaps be quite insuperable. As the very last resource, however, the Central Government may come to special terms with Bihar by making a gift of general stamps or temporary contribution to give it time to find its feet. Also a *via media* may be found in making the rich minerals of the province a sort of provincial asset for revenue

purposes as forest elsewhere help provincial governments. Irrigation, Forests, Judicial Stamps and Registration Fees will, of course, form subordinate heads of provincial budgets.

(B) THE INDIAN STATES AND THE CENTRAL EXCHEQUER.

The financial woes of Indian States perhaps make the saddest chapter in the history of Indian Public Finance. For the boon of a halting and perfunctory recognition of Political semi-sovereignty never could a heavier or a more exacting price have been paid. Tributes formally paid or assignments of territory made to the suzerain power in return for protection form, doubtless, the very least part of this relationship. The states being geographically an integral part of the country scattered in varying dimensions all over the land, the operation of All-India developments like the Government policy of Credit and Currency, communications like Railways, Posts and Telegraphs, Customs Regulations, Opium and Salt-tax were made to extend to states quite as impartially as to the rest of India—bringing the states' subjects within the orbit of a considerable part of All-India taxation without their being, in any way, either a party to such settlement or the recipients of the boons of good government that taxation is supposed to give. Sometimes, rather too frankly, government made their own financial necessity a convenient excuse for extending their tax operations to Indian States as the following little quotations will easily illustrate:

“ As an unavoidable consequence of the new system and one without which the relief of our own subjects would have been impracticable, the people of the Native States in question became generally liable to the payment of the British salt-duty . . .¹

In more recent times the question of the share of Indian States in the Customs on Foreign imports and its unpleasant adjunct the Viramgam imbroglio have come in for a serious scrutiny which must, at no distant date, lead to a Customs-Union (Indian Zollve

¹ Sir J. Strachey's ' *The Finance and Public Works of India*, ' p. 226.

rein). If the past history of the financial exploitation of Indian States at the hands of British India were carefully compiled, a very unpleasant story of 'the weaker goes to the wall' would be revealed. Justice imperatively demands the redress of this long standing grievance.

THE CONCEPT OF THE REPRESENTATIVE FIRM

BY

AMIYA KUMAR DAS-GUPTA

I

Prof. Davenport has remarked—"The notion of the Representative Firm appears to lack something in joint of theoretical tangibility."¹ More recently the Colwyn Committee on National Debt and Taxation, while reporting on the incidence of a tax on profits, practically dismiss the concept of a Representative Firm. They point out that the price is measured by the cost of production to the marginal producer, and accordingly they arrive at the conclusion that a tax on profits does not raise prices. Mr. Lionel Robins in a note on the Representative Firm² declares that the concept is 'superfluous' and 'misleading.'

So it seems that the concept of a Representative Firm which Marshall nurtured so carefully in his lifetime and to which he stuck to the end is in danger of being exploded. Let us, however, see if we can rescue it from the hands of these critics.

II

So far as short period markets are concerned the marginal method serves our purpose. In such a period of imperfect adjustment of the forces of demand and supply the degree of influence exerted by cost of production on value must needs be small, and the extent to which it does influence value can be estimated at the margin, for, it is the prime cost to the marginal producer that sets the minimum below which the short period normal price

¹ *Value and Distribution*, p. 378.

² *The Economic Journal*, September, 1928.

does not usually go; and as a general theory it may be laid down that the normal value in any such period is determined according to the principle of 'what the market will bear.'

In the long period, too, in so far as the differences in the efficiency of firms are *permanent*, the normal value tends to be equal to the marginal cost. Here we assume a state of 'relative rest.' The firms may be moving as the industry as a whole moves, but in relation to one another they are assumed to be static, so that the influence of cost on value can well be studied at the margin. This is true whatever be the law of supply price that the industry obeys. With regard to industries that obey the laws of increasing or constant supply price, the difference in the efficiency of firms cannot but be permanent, and hence in these cases the marginal method is always applicable.

Things are, however, different when we take a dynamic view,—when we assume that the differences in the efficiency of different firms composing an industry are *temporary*, and there is a constant movement of all firms,—a movement which is by no means regular. Evidently this state of things arises in an industry which obeys the law of diminishing supply price.³ In this dynamic state, some firms are rising, some are falling after they have attained maturity, while the industry as a whole is steadily moving. It is here that Marshall introduces the biological analogy

³ I use Prof. Pigou's phraseology (which he adopts in his Paper on *An Analysis of Supply*, published in the *Economic Journal*, June, 1928), viz., *Laws of Constant, Increasing and Diminishing Supply Price*, instead of *Constant, Diminishing and Increasing Returns* respectively. In the first two cases, however, where the cost per unit remains constant or increases with every increase in the output, the departure means no advantage. For, in the case of *Constant Returns* the marginal cost curve coincides with the average cost curve and as such with the curve of supply price; and in the case of *Diminishing Returns* the marginal cost curve is more important than the average cost curve in connection with the study of price-determination, for it is with the former that the curve of supply price coincides. In the case of *Increasing Returns*, on the other hand, the curve of supply price coincides with average cost curve and not with the marginal cost curve, and here, therefore, the new phraseology, viz., *Diminishing Supply Price*

and looks upon an industry as having a tree-like organism. Even as a tree is composed of many leaves and branches, an industry is composed of many firms. There is a process of life and decay in the leaves and branches, and an industry is also subject to this organic law. The tree grows on steadily though there are ups and downs in the lives of leaves and branches. Similarly the industry grows on steadily though there are ups and downs in the lives of individual firms. At the start they struggle for existence, somehow managing their affairs, often undergoing loss; but still they grow, attain maturity and then decay and ultimately may die 'yielding place to new.' Throughout any particular period, therefore, some firms are struggling, some are growing, others have risen to the apex, others again are in the process of decay after they have passed through a period of good fortune; but the industry as a whole may be moving on steadily. A disturbance in an individual firm has not necessarily any corresponding effect upon the industry. It is the resultant of the forces brought about by the individual firms that affect the industry, not the disturbances in any particular firm; for a disturbance in any one firm may be counteracted by an opposite disturbance in another, so that the industry may remain unaffected. Therefore, when in the long run, the industry is in equilibrium, or in other words, when the aggregate volume of production is adjusted to the total demand, the individual firms may not be in equilibrium, and it is possible that some firms will be carrying on business at a loss.

III

In the light of the above analysis let us examine which firm it is that governs value in a long-period adjustment,—the marginal firm, the best firm, or the Representative Firm?

The marginal firm is one which produces at the highest cost.

is more useful, inasmuch as it refers to the average cost per unit rather than to the particular expense per unit, and moreover takes into account Increasing economy of large-scale production as well as Increasing Returns as such.

Now, had it been one which makes *neither gain nor loss*, it would be reasonable to take this marginal firm as governing value in the long run⁴, just as we take the land on the margin of cultivation as the basis on which the price of agricultural commodities is determined. But, as has been just indicated, there may be firms even in the long period which produce at a loss. Consequently the price cannot equal the cost of production to the marginal producer.

Then, is it the best firm whose cost indicates value in the long run? Mr. Coates in his memorandum before the Colwyn Committee gives us such an idea. 'While,' he says, "the board trend of prices is governed by the lowest or the most efficient cost of production, . . . this stage (evidently referring to the long period) is rarely reached in the actual conditions of life."⁵ Well, the best firm can rule the market if it has got an indefinite capacity of increasing production so as to meet the aggregate demand of the market; but that is hardly possible when there are 'subjective' and 'objective' limits to the growth of firms.⁶ And even if it is possible, it takes the form of a monopoly which is beyond the range of our present enquiry. If, on the other hand, Mr. Coates thinks that all firms approximate in the long run to the best firm, then, I am afraid, he errs in entertaining too optimistic an idea about men's capacities and ignoring the differences in the gifts of entrepreneurs, inborn and acquired.

It is clear, therefore, that neither the best firm nor the marginal firm governs the long-period price. We have, therefore, to fix our eyes on a firm which represents the industry,—which "has its fair share of those internal and external economies, which appertain to the aggregate scale of production in the industry to which

⁴ Cf. Robertson's Paper on 'The Colwyn Committee, the Income-tax and the Price-level, the *Economic Journal*, Dec., 1927.

⁵ Appendices to the Report of the Committee on National Debt and Taxation, p. 68.

⁶ See *Journal of the Royal Statistical Society*, April, 1914, p. 515. A Study of the Sizes of Business by Prof. Chapman and Mr. T. S. Ashton.

it belongs.”⁷ Unless we take the help of the supply schedule of this representative firm we cannot get at the true equilibrium point. So far as the super-representative firms are concerned, their supply curve, as Mr. Robertson points out, does not meet the market-demand curve at all; and in the case of sub-representative firms the intersection of the two curves takes place at a point to the left of the equilibrium point, so that they undergo loss.⁸ It is the supply schedule of the representative firm that typifies the supply schedule of the industry.

In drawing the demand schedule of a market also we apply exactly the same principle. The total demand of a market is the sum of the demands of all individuals constituting the market, as the aggregate volume of production is the sum of the output of the individual firms; but as there are rich as well as poor consumers whose demand-schedules vary, we are to fix our eyes on a representative consumer whose demand-schedule typifies the market demand-schedule.⁹ *It is when we connect the supply curve of a representative producer with the demand curve of a representative consumer that we get the true equilibrium point and the equilibrium price that is warranted by the conditions of the aggregate supply of and the aggregate demand for a commodity.*

IV

What, then, is the nature of the Representative Firm? Is it an average firm? If so, what sort of average?

In his *Principles* Marshall says that “a representative firm is in a sense an average firm.”¹⁰ But how far is the conception capable of being brought in relation to the statistical conception of an average? Mr. Keynes, discussing the elaborate statistical analysis of business profits which Mr. Coates submitted to the Colwyn Committee, suggests that the magnitude of the dispersion

⁷ Marshall, *Principles of Economics* (7th edition), p. 459.

⁸ Cf., *The Economic Journal*, December, 1927, p. 573.

⁹ Cf., Marshall, *Principles of Economics* (7th edition), p. 99.

¹⁰ *Principles of Economics* (7th edition), p. 318.

of profits is "so considerable as to do some damage to the conception of the Representative Firm."¹¹ To this, however, Mr. Robertson does not agree, and he ventures to think that "it would not greatly have surprised Marshall."¹² As a matter of fact the statistics furnished by Mr. Coates are not free from short period effects, so that the Median calculated on the basis of those statistics represents a short-period average; but the representative firm, as we have already noted, is purely a long-period concept and is therefore a long-period average firm, or in other words, a firm which is of an average size and secures average profits when the industry to which it belongs is in a state of equilibrium. Mr. Robins also receives the notion in this sense; but he argues that as soon as it ceases to be taken as a short-period average, it loses its practical usefulness. It is true that the concept has been devised to make our science realistic; but, like the notion of 'normal price' it is essentially an abstract concept, showing a *tendency*, and facilitating the comprehension of general relations between cost and value in the long-period under dynamic conditions. Moreover, the concept is not entirely divorced from the real economic world, as is well-shown by the results of the statistical enquiry held in 1914, by Prof. Chapman and Mr. Ashton. The conclusion they arrive at through a study of the sizes of actual businesses is as follows: "Generally speaking, there would seem to exist in industries, of adequate size, under given sets of conditions, typical or representative magnitudes to which businesses tend to grow. . . . Indeed the growth of a business and the volume and form which it ultimately assumes are apparently determined in somewhat the same fashion as the development of an organism in the animal or the vegetable world. As there is a normal size and form for a man, so, but less markedly, are there normal sizes and forms for businesses."¹³ Their

¹¹ *The Economic Journal*, June, 1927, p. 205.

¹² *The Economic Journal*, December, 1927, p. 571.

¹³ *Journal of the Royal Statistical Society*, April, 1924, (*The Sizes of Businesses, Mainly in the Textile Industries*), p. 512.

results were so conclusive of the appropriateness of the notion to actual conditions that Mr. Stamp, in course of his discussion on their Paper, said that it had rescued it from "the region of theoretical abstraction and practically proved it to be a reality which there was no need to be shy about."¹⁴ Hence the basis for studying the influence of cost on value in the circumstances described above is not the best firm, nor the worst firm, but *the average firm (or firms) round which all firms move.*

Now, if it is admitted that the concept points to a long-period average, does it mean an abandonment of the marginal analysis? Prof. Davenport suggests that "perhaps the doctrine points to a firm which in the long-period adjustment, with all its ups and downs, will pass for a marginal firm."¹⁵ But this is a caricature of the conception of a representative firm; for, Marshall's doctrine assumes that even in a long-period adjustment the marginal firm is such as produces at a loss. What we are concerned with, however, is the marginal cost of the representative firm¹⁵; or in other words, the average cost per unit when the last unit of the firm has been produced. It is just here that the representative producer is in doubt whether or not he should add a new process to his organisation.

V

I shall now examine briefly the objections that Mr. Robins raised against the concept as a theoretical proposition. It has been seen that he questions the practical utility of the concept. But he does not stop there. He says that even from a theoretical standpoint it is 'superfluous' and 'misleading.' His main contention, as far as I have been able to glean from his paper, is that in equilibrium conditions, no entrepreneur can undergo loss; for, if they do they ultimately turn to other occupations. From the

¹⁴ *Ibid.*, p. 551.

¹⁵ Davenport, *Value and Distribution*, p. 378.

¹⁶ (Cf., Marshall, *Principles of Economics* (7th edition, p. 460—"This, then is the marginal cost on which we fix our eyes,"

point of view of other factors, there is what is called a *margin of transference* as between any two occupations; lands, for example, which are below margin with respect to one line of production, are transferred to other rival uses, and so are labour and capital. Similarly the entrepreneur below margin in a given line of production is transferred to another line; or, if he is extra-marginal in every line he may be converted into a manual labourer or a salaried official, so that, in equilibrium conditions, there is no possibility of 'half-wits' or 'incompetents' to be an entrepreneur. Consequently in a long-period adjustment value is indicated by the cost of production to the marginal entrepreneur who secures a profit which cannot be lower than normal wages. Thus Mr. Robins says—"There is no more need for us to assume a representative firm or a representative producer, than there is for us to assume a representative piece of land, a representative machine, or a representative worker."¹⁷ Now, so long as Mr. Robins refers to what is called 'Static General Equilibrium' his analysis is quite tenable, inasmuch as the adjustment is such that every factor, human as well as material, receives as much net income as it would get elsewhere. But if we want to keep any touch with the real economic world, we cannot place the entrepreneur and the other factors in the same category. The distinctive feature of entrepreneur as a factor of production lies in its assumption of risk. As the responsibility of co-ordinating other factors devolves on the entrepreneur, the loss from a business, if there is any, is to be borne by him, and not by any other factor. The conception of 'negative interest,' 'negative wages,' or 'negative rent' is chimerical, but not so the conception of 'negative profits.' In fact, in the long period when a particular industry is in equilibrium, the individual firms may be undergoing a dynamic

¹⁷ *The Economic Journal*, September, 1928, p. 303; cf., also Davenport: Certainly there are all sorts of firms and all degrees of flux and change among them; but so there are all sorts of wage-earners, of independent producers, of lands, of machines." *Value and Distribution*, p. 376 n.

process, and as such may not be in equilibrium; in other words, *what is long-period in relation to an industry as a whole, may not be a long-period in relation to the individual firms which are its component parts.* I do not understand how in these circumstances the conception of a representative firm can be dispensed with.

Mr. Robins further points out that the notion is liable to misapprehension; and as an instance, he mentions how it has misled Mr. Henderson in his treatment of the notion of 'margin.' Mr. Henderson has said: "The marginal concern must not be conceived as that working under the least advantageous conditions in respect of the assistance it derives from the strictly limited resources of nature, but under average conditions as regards managerial capacity and human qualities in general."¹⁸ Mr. Henderson's analysis comes to this that in a long-period adjustment all producers are at least of average ability,—obviously an inaccurate analysis, so long as we have to recognise "the possibility of diminishing returns to managerial ability"; for, as Mr. Robins points out, "if all entrepreneurs were at least of average managerial ability, they would at once cease to be average."¹⁹ But I do not see why the blame should be thrown on Marshall who is quite clear on this point. 'Anyone,' he says, "proposing to start a new business if himself a man of *normal* capacity for that class of work . . . may look forward ere long to his business being a *representative* one, with its fair share of economies of production on a large scale."²⁰ Thus Marshall recognises the fact that circumstances are created by the entrepreneurs themselves, and there is no reason why an entrepreneur of average managerial ability should be at the head of the 'marginal concern.'²¹

¹⁸ *Supply and Demand*, p. 60.

¹⁹ *The Economic Journal*, September, 1928, p. 402.

²⁰ Marshall, *Principles of Economics* (7th edition), p. 377. (Italics are mine.)

²¹ A Paper read at a Meeting of the Dacca University Economic Association on the 8th April, 1929,

MOFUSSIL MARKETING OF JUTE

BY

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SUMMARY

In this Paper, some details about the marketing of jute in the mofussil in Bengal have been given, supplementing the information incorporated in the writer's previous Paper on "Marketing of Jute in Calcutta," which was submitted to the last Annual Conference. It has been shown that the organisation is extremely complex, but all the intermediaries in the trade do not perform adequate economic service, for which they may reasonably expect any remuneration. An attempt has been made to throw some light on the many obscurities in marketing methods, mainly as a result of personal observation during a protracted tour undertaken for the purpose. But no conclusions have been drawn to suggest improvements, some of them having been discussed in the previous Paper.

To understand the whole process of marketing, it is necessary to begin from harvesting the crop. For unlike other commodities, the preparation of jute for the market is an elaborate affair, in the course of which about 95 per cent of the gross yield has to be carefully eliminated, to get the pure dry fibre. When the plants are fully mature, they have to be cut and carefully piled, layer after layer, on the ground, the top of the plants in each layer being covered by the bottom of the plants in the layer above and so on. This is called "retting on land," the main object being to get rid of the leaves, which discolour the water used for steeping the jute. The leaves drop off in about three days, when retting proper begins. The water has to be carefully

selected. Flowing water is to be preferred, even if it has a muddy appearance, for then the fibre retains its gloss and colour, although the process then takes a somewhat longer time than in stagnant water. In most of the villages, retting is perfunctorily done. Instead of putting a layer of bamboos or dry jute sticks above the bundle to be retted, clods of earth or stones are directly put as weights, thus preventing contact with water and discolouring the fibre. Sufficient care is sometimes not taken to immerse the bundle completely.¹ Another mistake on the part of the ryot, unfortunately all too frequent, is to ret his entire crop in one day. The quantity of jute which may be easily steeped by two or three members of a family in a single day requires about ten or twelve days for washing for the whole family, during which a portion is necessarily injured due to protracted steeping. The short cuts sometimes adopted, *viz.*, to batter the plant with logs of wood, breaks the fibre and diminishes its value. Another expedient is a form of agricultural co-operation, known in some part of the Nadia district as *mangan hala*, literally "tree agriculture." All the villagers lend their services free of charge for threshing the fibre, who are then invited to a feast by the ryot concerned. It is a picturesque village custom, but is inefficient and wasteful. Specks of the bark are not completely removed with sufficient care. Jute is frequently dried on bare earth in heaps, thus injuring and discolouring the fibre. Unfortunately, the ryot seems to be ignorant of the very great harm caused to his crop by want of care and expert knowledge. The Agricultural Department concern themselves only with the introduction of better seeds and not with proper preparation for the market.

No Warehousing Possible.

As soon as the fibre is ready, the ryot has to sell it off. There are a number of reasons for this. Bengal is a land of

¹ In one village, about one-third of a bundle was found to be floating above the water.

small holdings,—smaller even than the tiny parcels in other provinces. The ryot is unable to make proper arrangements for warehousing his produce with his scanty resources. It should also be remembered that he has to incur greater out-of-pocket expenses for cultivating jute than rice, for weeding, threshing and other operations. He cannot, therefore, afford to hold out for a sufficiently high price. In the second place, jute is combustible, and he is naturally unable to keep it in the vicinity of the thatched hut in which he lives. Thirdly, the fibre deteriorates considerably in colour and strength, specially if it is not absolutely dry before storage. Fourthly, when the numerous creeks in which East Bengal abounds dry up, the only means of transport is the primitive bullock cart, which makes the cost very great in the case of a cheap and bulky commodity like jute,—the more so when it has to be sent to a distant market.

Inauguration Ceremony.

In the meantime, the buyers of jute also make ready their own arrangements. An auspicious day, generally the date of the Car festival of *Jagannatha* in Puri² is chosen for inaugurating the season. In May and June, small and stunted plants are carefully weeded out to enable others to grow up properly. These are retted and the fibre so obtained is generally utilised for the inauguration ceremony. The *aratdar* (literally warehouse-keeper) sits in state with his scale liberally smeared with vermilion paste. The *beparis* (literally merchants) and others attend the feast and the religious ceremony held in this connection. Brokers and balers' representatives as also *farias* or itinerant purchasers are also frequently invited to attend.

² Curiously enough, this preserves the historical continuity with Orissa of the jute trade, pointed out in the report of the Jute Commission of 1873.

Intermediaries in the Trade.

It may be asked why so many intermediaries have appeared in the field. Some years ago, when balers established stations in important places like Narayanganj for the first time, it was naturally found that the local imports were not sufficient in quantity. It was, however, impossible for them to get at the actual cultivators, who could offer only small lots of unassorted jute, and that after much haggling, either at their own homes or at the neighbouring *hats* (*i.e.*, markets held on stated days of the week). Balers therefore had to employ *beparis* to collect jute from the cultivators. These were generally large boat-owners³ of their villages and had their own capital or had advances from the balers, generally free of interest. As more and more balers entered the field and competition became keener and keener there appeared *beparis*, who were neither financially independent themselves, nor financed by the balers but received advances from a separate body of people, *viz.*, the *aratdars*, who charged *aratdari* (*i.e.*, commission) which represented in effect the interest on the advance. Generally these *aratdars* tried to consolidate their own position, and to reduce *beparis* to subservience. In some places they have degenerated into mere *farias*. Ordinary *mahajans* or village money-lenders have also come to take their hand in the game. During the sowing season or after, they began to advance monies to the cultivators on the hypothecation of the crop. The instruments made out were very peculiar, and were called *sakta patras*⁴ in North Bengal, in terms of which the borrower agreed to deliver a stipulated amount of jute to the lender within a specified date in repayment of the loan. It is needless to say that the poor ryot had in most cases to be content with far

³ A graphic description of *bhasania beparis* (literally, floating merchants) and their business on big boats about half a century ago is given in the report of the Jute Commission of 1873.

⁴ Happily these are gradually dying out.

less than the proper market value. Besides these *mahajans*, there also arose *paikars* (literally whole-salers) who often formed a link above the *fariats* but below the *aratdars*. Most of these many intermediaries do not perform any economic service commensurate with their remuneration, such as grading, bulking and warehousing. They simply deprive the ryot of a part of the fruit of his labour, raise the ultimate price to the mill or the exporter, and impede the movement of the crop. Not only this, it is these middlemen, generally *fariats*, who perpetrate most of the malpractices to be found in the trade, such as watering the jute and strewing sand on it to hide the moisture. The ryot cannot adulterate the jute in this way, for his small bundle is very closely scrutinised before it is purchased. Moreover, he cannot afford to take the risks of storing watered jute even for a few days, whereas the *faria*, who effects the sale as soon as possible after the purchase, on account of his scanty resources, need only risk detection by his buyer to reap an unjust profit. Another malpractice, not very frequent, is to put a clod of earth or a piece of stone inside a tight bundle of loose jute to increase the weight.

Their Method of doing Business.

It has been officially estimated that these middlemen charge anything from 25 per cent to 30 per cent of the value as their remuneration to be distributed among themselves. Nor is this all. Cases are not rare where the *faria* cleverly manipulates the scale and manages to have as much as 10 per cent in excess of the actual weight. Various arbitrary deductions are also made on the plea of customary allowances to be made to the *aratdar*. The same devices for cheating the ryot are adopted by the *paikar*, the *mahajan* and the *bepari*, only they generally buy at *hats*, and not at the homes of villagers. Finally jute is taken to *mokams* or stations where agents of exporters and balers are to be found. There are various recognised and customary trading allowances in

all these mokams. The charges enforced in a few small stations are given in the following table⁶ :—

Station.	Excess charged from sellers per 100 maunds.				Total in mds.
	Muty (literally handful).	Bachat (literally amount to be rejected for inferior quality).	Dhalak (i e., customary allowance).		
	Srs.	Srs.	Mds.	Srs.	
Munshirhat	... 13	12	2	20	3.125
Hatkopa	... 15	10	2	20	3.125
Lalpur	... 20	20	3	0	4.000
Bangalpara	.. 10	10	3	0	3.500
Mirzapur	... 5	5	2	20	2.750
Ghorasal	... 15	10	2	0	2.625

Apart from these, a high local measure of weight is prescribed and the ryot mulcted accordingly (see post).

Aratdars in Mofussil.

There are no *aratdars* in most of the mofussil stations in the strict sense of the term. For instance in Calcutta, the buyer or his representative attends the *arats* at Hatkhola or other places but in mofussil stations like Narayanganj, the *aratdar* has such a small godown that he cannot land the jute there but has to arrange for the inspection and the delivery of jute at balers' presses. He is frequently unable to take the whole of the financial liability on his own shoulders and generally lends through the intervention of guarantee brokers or *dulals*, who usually charge a flat commission of $\frac{1}{2}$ anna per maund, each from the *aratdar* and the *bepari*. At most of the agencies in the Mymensing district, each *aratdar* collects jute for a particular firm, which is represented locally by a *khariddar*, i.e., purchaser. At Chandpur, there are no *aratdars* at all, the brokers are very influential and receive large advances from balers, thus enabling them to carry

⁶ The writer is indebted to the Hony. Secretary of the Narayanganj Chamber of Commerce for this table.

on direct business. At Sarisabari sellers enter into forward contracts with balers and deliver the jute with the help of their own finance. At Serajganj, the position of the *aratdars* is becoming gradually weaker, on account of the determined attempts made by the balers to enter into direct business relations with the *beparis*. At Akhaura *nagda beparis* or cash-sellers are very rare, most of the *beparis* being financed by the balers direct.

Organisation of Baling Houses.

There are four recognised forms in which jute is sold, *viz.*, *pucca* bales, *kutchra* bales, *bojhas* (*i.e.*, assorted bundles) and loose jute. The first two have been described in the Paper on "Marketing of Jute in Calcutta." But it must not be supposed that these two forms of packing are to be found only in Calcutta. Although *pucca* baling is not very frequent, *kutchra* baling is to be found even in small *mokams*. The organisation is not very complex. At the head is a Manager, who has a share in the profits, in addition to a fixed salary and a free house. There are four departments under him, *viz.*, (1) the import shed, where jute is bought (generally on the river-side with a jetty, where boats of *beparis* may land the jute); (2) the assorting shed, where jute is baled (generally away from the river); (3) the store shed where jute is stored (generally on the river-side for facilitating exportation, but at a distance from the loose jute in the importing shed to minimise risks of fire); and (4) the office, where payments are made and received and accounts and returns are prepared. The first department is managed by an overseer on a pay of about Rs. 100 to Rs. 150 a month, having a number of *moharars* or tallymen under him, who keep a record in English of the jute purchased, on a pay from Rs. 14 to Rs. 18 per month, plus a share of the commission of Rs. 4 per 100 maunds realised, from the sellers. An independent check is provided by *koyalis* or weighmen, who keep a record in the vernacular on a pay of Rs. 6 to Rs. 8 a month plus the balance of the commission described above. The assorting shed has two departmental heads

(1) the Assorting Master, who controls the *khatawallahs* (i.e., the contractors employed for assorting and baling the jute at a flat inclusive rate varying from 6 annas to 10 annas per bale); and (2) the Press-house Overseer, who has a number of tallymen under him for keeping a record of the bales done up by each *khatawallah*, and a few markmen for putting the appropriate mark on the each bale according to its quality, by means of special stencils, using different inks for facilitating work by illiterate workmen. In the storeshed, the bales are stacked on bamboo racks at different places for different marks, with small rails connecting the storeshed with the assorting shed and the river-side jetty. One of the best laid out baling houses in Narayanganj is owned by the Co-operative Jute Sale and Supply Society, where arrangements are entirely suitable for proper supervision.

Diversity in Marketing Method.

Although the organisation of baling firms is about the same throughout the mofussil in Bengal, it must not be supposed that a standard system of marketing is prevalent. On the contrary, a rough idea of the chaos may be formed from the following list of standard weights in different stations, small and big:—

Market.	Weight of local seer in <i>tolas</i> of		
	180 grains each.		
Ashuganj	88
Bangalpara	85
Bhairab	88
Bogra	60
Chandpur	83
Dacca	87
Faridpur	60
Ghorasal	84
Hatkopa	84
Lalpur	83
Madaripur	82
Mirzapur	84
Munshirhat	84
Mymensingh	90
Narayanganj	84

Market.	Weight of local seer in <i>tolas</i> of		
	180 grains each.		
Sarishabari	88
Sirajganj	83
Sonatola	84
Tarpasha	85

The charges to be paid are also variable. At Tarpasha a flat commission of $2\frac{1}{2}$ annas per maund is levied. At Mymensingh $\frac{1}{2}$ anna to 1 anna per maund is payable by the *khariddar* (see ante) and an equal amount by the seller. In some markets, however, the charge is distributed in different items, as will be clear from the following copy of an actual account sale in the Narayanganj market:—

	Mds.	Srs.	Mds.	Srs.
Scale weight, at 80 <i>tolas</i> standard seer ...			188	25
Less scale allowance, ⁶ at $2\frac{1}{2}$ per cent ...	4	29		
<i>Namuna</i> or sample, at 13 seers per 100 maunds ...	0	24		
<i>Bachut</i> or deduction for so-called in- ferior quality, at 20 seers per 100 mds. ...	0	37		
<i>Dhalak</i> or difference between local and standard weight, <i>viz.</i> , 80 and 84 to ...	10	10		
			16	20
Net weight ...			172	5
	Rs. a. p.		Rs. a. p.	
Price, at Rs. 11-6 per maund ...			1,957	14 9
Less brokerage, at one anna per maund ...	10	12 0		
Cost of stamp ...	0	1 0		
			10	13 0
			1,947	1 9

⁶ This allowance was first made to buyers, who used beam scales instead of ordinary hand scales, which could be manipulated to show a weight less than the actual weight. But it has now become customary.

This is subject to other unauthorised levies such as:—

- (1) Zamindar's *abwab* or illegal exactions, at 3 pies to 6 pies per maund.
- (2) *Koyali* (see ante), at Rs. 2 to Rs. 4 per 100 maunds.
- (3) *Jachandari* (assorting charges), at Rs. 2 to Rs. 3 per 100 maunds.
- (4) *Kabari* (staff allowance), at 5 seers to 7 seers per 100 maunds.
- (5) *Iswar britti* (allowance for charity), at 5 seers on each deal.

Transport from the Hinterland.

To give an idea about how the immense volume of jute collected at these different stations is carried to ports the following details about the established routes are given, their relative importance being indicated by adding within brackets the total number of maunds carried during the season ended 30th June, 1928, against each route.⁷

A. Shipment from Narayanganj and Bhairab.

1. (66, 55, 493) shipments through the India General Navigation & Railway Co. and River Steam Navigation Co. from and *via* Narayanganj (including shipments from Mirkadim and Ghorsal).

2. (13, 76, 900) I. G. and R. S. Co.'s shipments from Dacca by all services.

3. (24, 33, 062) shipments through the Bengal Assam Steamship Co., Ltd.

4. (4, 75, 952) shipments through the East Bengal River Steam Service.

⁷ The writer is indebted to the Hony. Secretary of the Narayanganj Chamber of Commerce for these details.

5. (7, 21, 229) transport by the Assam Bengal Railway to Chittagong *via* Tangi Junction and Bhairab Bazar Ferry.

6. (6, 26, 505) I. G. and R. S. Co.'s shipments from all stations on the Dhaleswary Service connecting Dacca Steamer Ghat with Lalitganj.

7. (17, 64, 510) I. G. and R. S. Co.'s shipments from all stations on the Bhairab section.

B. Shipments from Chandpur, Madaripur and Khulna.

1. (7, 35, 224) I. G. N. R. Co.'s shipments from Chandpur.

2. (7, 37, 368) R. S. N. Co.'s shipments.

3. (23, 151) combined service *via* Khulna.

4. (12, 47, 110) B. A. S. Co.'s shipments.

5. (4, 17, 208) combined services *via* Khulna from Akhaura, Chowmohuni and other places.

6. (10, 51, 165) I. G. and R. S. Co.'s shipments direct from Akhaura, Chowmohuni and other places.

7. (30, 06, 487) shipments by all services from Madaripur and district stations.

8. (3, 12, 179) I. G. and R. S. Co.'s shipments from Khulna and district stations by all services.

C. Shipments from Serajganj, Jagannathganj, Pudda Steamer Stations and Assam Section Stations.

1. (4, 10, 271) I. G. and R. S. Co.'s shipments from Serajganj to Calcutte.

2. (9, 13, 120) Railway transport by the Eastern Bengal Railway *via* Ishrdi Junction.

3. (7, 92, 328) I. G. and R. S. Co.'s shipments from Jagannathganj to Calcutta direct.

4. (4, 84, 728) I. G. and R. S. Co.'s shipments from Jagannathganj to Calcutta *via* Goalando.

5. (21, 05, 331) Mymensing Railway and combined service *via* Sirajganj.

6. (7, 26, 089) shipments from Pudda Steamer stations, *i.e.*, between Goalando and Narayanganj and between Goalando and Chandpur.

7. (7, 59, 293) shipments from Assam stations.

*D. Shipments via Fulchari, Santahar, Parbatipur and
Santahar-Parbatipur Stations.*

1. (20, 44, 215) *via* Fulchari.

2. (56, 86, 839) *via* Santahar.

3. (38, 12, 629) *via* Parbatipur.

4. (34, 71, 025) *via* Santahar-Parbatipur.

Practically all the jute through these diverse routes reach Calcutta; the method of marketing in which was described in the writer's Paper on the subject submitted to the last Annual Conference.

FINANCE OF ROAD DEVELOPMENT

BY

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1. Desirability of Developing the Road System of India.

As a factor in the progress of a country communications are of the utmost importance. Large-scale production and division of labour on which the system of modern industry is based are rendered possible by the mechanical means of transport which convey raw material as well as finished goods to any distance, at any time and for a comparatively small price. The construction of roads and railways has enabled the movement of produce from one part of the country to another thus making the country a single economic unit for purposes of purchase and sale, while roads and railways together with steamships have linked together the cultivators and manufacturers of the whole world. Good communications also promote the free exchange of ideas between town and country and serve to diminish the gulf between the rural parts and urban areas in point of intellectual vigour, cultural achievements and standard of living.

The necessity for a good system of communications is especially felt in India. In an agricultural country such as India roads are of the greatest importance to the cultivator for on them depends his opportunity for the marketing of his produce on the best terms. Efficient communications open out new markets for him and also diminish the period of waiting between production and sale which reacts favourably both on the price he receives and on his financial independence. The improvement in communica-

tions, such as it is, has brought about the transition from subsistence farming to commercial farming such as cotton, jute, groundnut and tobacco.

Despite the improvements in communications in the last three decades India still remains a very backward country in respect of transport. Indian roads may be described as poor in quality and insufficient in extent. India has 39,000 miles of railways while U. S. A. has 249,000 miles—miles of line per 100 sq. miles for India being 2.2 and for U. S. A. 8.42, inhabitants per mile of line for India being 7900 and for U. S. A. 469. Similarly for 100 sq. miles of area India has 20 miles of road while U. S. A. has 2,550.¹ Apart from the paucity of roads there are serious defects in the existing road system. The lack of bridges and crossings causes waste of time and reduces the load which a bullock cart could carry. Road surfaces are not kept in good repair which hampers the development of motor traffic and consequently the movement of goods and people. There has been no orderly development of communications—very often the village roads are not linked on to the main roads which diminishes the economic value of the main road, the main roads are not linked to the railway system which prevents the full value of the main road as well as the railway from being realized. Railways in India have always felt the lack of roads to feed them. It is indeed somewhat incongruous that there should be nearly 40,000 miles of railways in India, while the total mileage of surfaced roads in British India is only 59,000.² The interdependence of communications which is an important factor in the road policy of a country is not always kept in view by the road-builders of India.

The sudden and rapid growth of motor transport has created additional difficulties in the framing of a road programme and additional demands on the resources of the bodies responsible for road development. The number of motor vehicles imported into

¹ *Vide* Report of the Royal Commission on Agriculture, p. 369.

² *Vide* Report of the Indian Road Development Committee, p. 20, para. 36.

India has risen from 4,400 in 1914 to 26,000 in 1928, and the consumption of petrol has increased from 4·5 million gallons to 50 in the same period. The effect of motor traffic on roads has been disastrous. In the words of the Report of the Indian Road Development Committee: "The development of motor traffic is revolutionising the road problem in India. Roads of water-bound macadam are proving inadequate for combined bullock cart and motor traffic. It is complained, on the one hand, that roads are deteriorating owing to the increase in motor traffic, and that money for repairs is not available. On the other hand, it is objected by motor-owners that their vehicles are damaged by bad roads, and that the development of motor services is hampered by the inadequacy of the existing road system."

2. How Indian Road-Building is Financed.

The roads in British India may be roughly divided into three classes: (a) Provincial roads or roads wholly or mainly maintained from provincial revenues; (b) Local roads or roads maintained either wholly from local funds, that is, from the funds of district boards or partly from local funds and partly from grant-in-aid from provincial revenues; (c) Municipal and Village roads maintained from municipal revenues in the case of municipalities and from village revenues with or without a grant-in-aid from local bodies in the case of village communications.

All expenditure on roads is met from general revenues and there is no taxation—central, provincial or local—specially earmarked for expenditure on roads. The Central Government levies taxes on motor transport, the Provincial Government collects tolls on the main roads and the local authorities derive a considerable proportion of their revenue from octroi and terminal taxes. But the yield from all these charges forms part of the general revenues which are applied indiscriminately to all the branches of public expenditure.

Construction of roads is sometimes financed from loans. In Madras the expenditure on a few roads is met from loans. In the United Provinces there is a three-year programme of road-building which is being financed from loans. In Bombay all road schemes which involve an outlay of Rs. 5 lakhs and over are met from loans. In the Punjab also the construction of certain major bridges and main roads is debited to capital account. Loans for road construction, however, form only a small proportion of the total amount expended on roads. In 1926-27 the total expenditure, both provincial and local, on roads was 804 lakhs out of which only a sum of 62 lakhs was raised from loans while the remaining, namely a sum of 742 lakhs, was charged to general revenues.

To understand the present position of road finance in India it is necessary to enquire into the relative importance of provincial and local roads. The total road length in British India is 199,000 miles: provincial roads 48,000, local roads 151,000. While the mileage as between surfaced and unsurfaced roads is equally distributed in provincial highways, unsurfaced preponderate in the case of local areas. The provinces spend Rs. 563 lakhs or 5 per cent of their total revenues on roads while the district boards spend Rs. 241 lakhs or 25 per cent of their total income. Provincial as well as local expenditure has been increasing rapidly; and the former has been increasing at a faster rate than the latter. In 1914 the provincial budgets for road finance showed Rs. 216 lakhs, the local Rs. 204 lakhs. In 1926 the figures were Rs. 456 lakhs and Rs. 237 lakhs respectively. The percentages of provincial revenues and local funds spent on roads differ considerably in different provinces; in Madras the percentages are 2.5 and 36.2, in Bombay 4.4 and 15.6, in Bengal 2.8 and 35.3. Similarly the incidence of road expenditure per head of population varies in the different provinces; in Madras 4 as., Bombay 6.7 as., Bengal 2.3 as.

Provincial roads are financed from the general revenues of

the province without any assistance from the Central Government while local roads are mainly financed from local funds which are derived principally from a cess on land revenue. The district boards which are charged with the responsibility of maintaining the local roads receive contributions from provincial revenues. These contributions vary greatly from province to province. In Bengal almost the entire total mileage is maintained by the district boards which levy for the purpose of roads and public works cesses. The Government gives no direct subsidy towards the construction and repair of the roads. In Madras the roads are also entirely in charge of the local authorities but they are subsidized to a great extent by provincial revenues. Thus the whole cost of constructing trunk roads and bridges over them and half the cost of maintaining second-class roads and building causeways over them is borne by the Government. In 1927 the contribution from provincial revenues to the district boards for the construction and maintenance of trunk roads was 15.5 lakhs and of the other roads was 17 lakhs. In the Punjab the arteries of the road system have been taken over by the Public Works Department and are a charge on provincial revenues; the remaining roads are in charge of district boards and the cost of maintaining and developing them is shared between government revenues and local funds, the proportion of the cost borne by either varying from district to district. In most of the remaining provinces roads fall into two classes: those of local importance which are maintained by local bodies and those of provincial importance which are maintained by the government revenues. In 1926-27 grants-in-aid from the provincial exchequer to the district boards totalled Rs. 100 lakhs, out of which a sum of Rs. 32 lakhs was set apart for trunk roads and a sum of Rs. 68 lakhs for local roads.

The main roads are a proper charge on central revenues. The Government of India regards the provision of railways as a central subject having a claim on national revenues while it assumes

no responsibility for the development of roads which constitute along with railways the two main channels of communication in a country. The arterial roads no less than the railways should be the concern of the central government. The national revenues benefit from road development in two ways: the roads serve as feeders to the national railways and thus enhance the railway receipts and secondly customs and excise especially on motors and motor spirit are a very productive and rapidly increasing source of central revenue. In 1914 motor taxation fetched a revenue of Rs. 9 lakhs and in 1928, it rose to Rs. 271 lakhs. But practically the whole burden of road construction and maintenance falls on provincial revenues and local funds. The finances of provinces and districts are inelastic and incapable of large expansion. And at present they are spending on local roads as large a proportion of their income as they can afford. Most of them submitted to the Indian Road Development Committee that in spite of an urgent need for road expansion in their jurisdictions they were unable to increase their expenditure on communications without detriment to the nation-building activities such as education and public health.

The only remedy for the difficult situation in which the Central Government enjoys expanding sources of revenue but undertakes no responsibility for road maintenance and the provincial and local bodies have inelastic revenues, growing claims of expenditure and the responsibility of maintaining the road system, is to classify the roads in each province according to their importance for the country as a whole and re-apportion the responsibility for maintaining them according to the financial capacity of the central, provincial and district governments. Under this scheme all-India arterial roads would be maintained by provincial authorities with funds from the Central Exchequer, the provincial roads would be maintained from provincial resources, supplemented by contributions from the Central Government, district roads would be maintained by

local authorities with aid from provincial funds, and village roads would be maintained by local authorities only.

3. Reform of Road Finance: Motor Taxation.

The Government of India derives considerable revenue from motor taxation. It collects by way of customs duties on motor vehicles, tyres and tubes and excise duty on motor spirit a sum of nearly three crores of rupees. That it is a very productive source of income for the State is shown by the steady increase in receipts. It has risen from Rs. 157 lakhs in 1921 to Rs. 271 lakhs in 1928.

Motor Taxation in the interests of uniformity of rates, convenience of collection and economy of administration ought to be and in fact is central revenue. Provincial and local taxation of motor transport should be in the form of *centimes additionnel* or an allocation from the central exchequer of the proceeds of the motor taxes.

The question whether the object of motor taxation should be to enhance the general revenues or to finance road development does not admit of a simple answer. Some justify taxation of motor cars for general revenues on the ground that it is luxury taxation and that the ownership of a car is an indication of the taxable capacity of the owner. Others object to motor taxation on the ground that with the growth of cheap cars, buses and lorries motor transport has come to be used more by the poor than by the rich. Especially in areas not served by railways, cars, buses and lorries are essential for ordinary transport purposes and not for luxury. Any taxation of motor vehicles therefore is essentially a taxation of transport and as such to be discouraged unless the proceeds are used in encouraging the development of transport. It is commonly accepted that any tax on means of transport which augments general revenue is economically unsound. The bulk of the evidence before the Indian Road Development Committee showed that although the present rate of taxation has not retarded the development of motor transport all such taxation should be diverted

towards road development and that it must be regarded only as taxation *on* transport *for* transport. Most of the Provincial Governments in their memoranda before the Road Development Committee demanded that the receipts from motor taxation should be wholly or partly spent on road development. The Government of Bombay in their memorandum pleaded for the diversion of the revenue from customs and excise on motors and petrol for road development. The United Provinces and the Central Provinces Governments submitted that all taxation on transport should be utilised for the development and maintenance of the means of transport. Bihar and Orissa urged that the petrol excise should be earmarked for transport. Madras held the view that while customs and excise should belong to the central exchequer a portion of the proceeds should be assigned for road development.³

But the Road Development Committee did not accept the prevailing views on the subject of motor taxation earmarked for the development of transport. "Whatever theories may be held" they point out, "it is a fact that the present financial system in India requires various forms of transport to contribute to the general revenues, and the exemption of motor transport would not be a practical proposal. Our conclusion is that some additional taxation might be imposed on motor transport for purposes of road development over and above the existing taxation for general revenues."⁴ The findings of the Committee are not based on actual facts. It is a matter of common knowledge that the central revenues are expanding and that the provincial revenues which are saddled with the onerous duties of nation-building such as road development are stationary and not sufficient to meet the demands upon them. The Central Government can well afford to release

³ *Vide* Indian Road Development Committee, Evidence, Vol. I, Madras Memorandum, pp. 15 and 16; Bombay Memorandum, pp. 64 and 65; U.P. Memorandum, pp. 102 and 103; C.P. Memorandum, pp. 210 and 211; Bihar and Orissa Memorandum, pp. 190 and 191.

⁴ *Vide* Report of the Indian Road Development Committee, p. 36, para 61

a part of its funds for so important a task as the finance of road construction and road maintenance in the provinces.

The revenues from motor vehicles including parts and accessories, tyres and tubes in 1927 was Rs. 147 lakhs and the revenue from motor spirit was Rs. 124 lakhs. The Committee, in spite of the pressure of public opinion, did not recommend that either of these two receipts or both of them should be earmarked for the specific needs of transport, but instead recommended and their recommendation has been accepted by the Government of India that the duty on motor spirit might be raised from 4 as. to 6 as. per gallon provided that the additional 2 as. is spent on road development. The amount from the additional duty was estimated to yield Rs. 62 lakhs. This sum will not go far to finance road development throughout India. In 1927 the provinces spent Rs. 804 lakhs on roads while Madras alone spent Rs. 110 lakhs, Bombay 86, Bengal 66. Under the scheme Madras will get only Rs. 7.44 lakhs, Bombay 9.39, Bengal 8.99. The Committee, however, has accepted in theory the principle that motor taxes should be applied to road development. In the words of the Report, "Further, if the time arrives when it is possible to abolish or reduce taxation on motor spirit for general revenues, we are of opinion that the Government of India should consider the desirability of retaining the tax for purposes of road development."⁵

In conformity with the bulk of the evidence tendered before the Committee the yield from motor taxation may be spent entirely or in part on road development. Concretely the import duty and the excise duty on motor spirit may be earmarked for road expenditure. At the rate of 6 as. a gallon the duty will yield Rs. 188 lakhs, an amount which under the present conditions may be deemed sufficient for the purpose of road construction and road maintenance. Moreover the duty on motor spirit is a rapidly expanding source of revenue because the consumption of petrol has been increasing annually at the rate of about 30 per cent compound

⁵ *Vide* Report of the Indian Road Development Committee, p. 38, para. 66.

interest. With the rate at 6 as. and with no enhancement the petrol duty may in course of time be expected to bring much more than its estimated yield of Rs. 188 lakhs in 1928. Two conditions should be attached to the distribution of the grants among the provinces: that the proceeds be spent primarily on arterial roads and roads of provincial importance and that such expenditure to be additional to and not in place of any normal expenditure on roads. The Central Fund should, however, be available to finance interest and sinking fund charges on capital roads works constructed out of loans by provincial governments.

A petrol tax is the fairest form of taxation on motor transport. It automatically adjusts payment to service. It proportions the tax to road use. It imposes the heaviest charge on the luxury car and the heavy lorry which exercise the greatest pressure on the road surface and cause the greatest amount of wear and tear. Moreover the price of petrol is a small item in the total running costs of a motor vehicle. Consequently the duty on petrol will scarcely be felt by the payer. It is estimated that a duty of 4 as. per gallon adds only one-fifth of an anna to the total running costs per mile which are reckoned at about 6 as.⁶

The apportionment of the revenue from the petrol excise should be determined according to well-established principles. In the first place a convention somewhat on the lines adopted in the Mysore State to utilise for expenditure on roads all the realizations from tolls and fees levied on motor transport should be established whereby the Legislative Assembly would annually vote the proceeds of the petrol duty in a block grant for road development. Unexpected balances should not lapse, but should be carried over for expenditure in the following year. As the grants cannot be utilised effectively unless some continuity is assured a convention should be drawn up for a period of years, say ten years, after which the position may be reconsidered. A similar plan has been devised

⁶ *Vide* Report of the Indian Road Development Committee, p. 37, para. 66.

by the Road Development Committee for the proceeds of the additional duty on petrol recommended by them.

In the second place the principles regarding the expenditure of the annual grant should be definitely laid down and embodied in a formula. There are three sets of claims on the Road Fund: the provinces, the Indian States who like the provinces pay the petrol duty and a special provision required for road research and investigation and for those projects of all-India importance such as military roads which do not interest the provinces or local bodies. It is safe to set aside 10 per cent of the annual revenue from the proposed duty on motor spirit to meet the claims of the Indian States and 15 per cent for the special provision for research and projects of all-India importance. The balance is to be distributed among the Provinces somewhat on the principles accepted by the U.S.A. in the apportionment of the federal aid among the States on projects of road development. Briefly the factors to be considered are cultivated area, population, road expenditure and petrol consumption. Each factor by itself will not furnish a satisfactory criterion for the allocation of the grant, but all the factors taken together will correct the shortcomings of each factor and will result in an equitable distribution of the revenue from the petrol duty every year. The Road Development Committee proposes that the proceeds of the additional duty on motor spirit recommended by them should after due provision for road research, the share of the Indian States and for road projects of exceptional importance be apportioned among the provinces in the ratio that the consumption of petrol in each province bears to the total consumption in India in each year. The formula adopted by the Committee in spite of the qualifications will result in the apportionment of large shares to provinces with the large towns and not necessarily to provinces whose needs for road development are the greatest.

From the point of view of financial theory the method of earmarking a particular revenue for a particular expenditure is

unsound. But the principle admits of modifications in practice. The object of the method in the present case is to enable government to allocate more money to the special object of road-building than they do already. The provinces have not the funds for a comprehensive scheme of road development necessary in the best interests of the country; the Central Government has the funds, but not the responsibility for communications; the Central Government moreover derives considerable revenue from taxation of transport and applies it not to road-building which would be its justification but for purposes of general revenue which violates the principle of tax *on transport for transport*. Under the circumstances a particular tax for particular expenditure, viz., the petrol tax for road development is well-grounded in principle, especially so when a grant from the central road fund is conditional upon maintenance of the normal expenditure on roads from the provincial revenues.

A well-balanced system of provincial taxation on motor transport should include petrol duty, fees for registration and for drivers' licenses, vehicle taxation and fees for vehicles plying for hire. The petrol duty at 6 as. a gallon has approached the limits of economic productivity. Concentration of a tax on a single commodity is not so advantageous as taxation spread over several commodities. Further heavy taxation of petrol might stimulate the use of petrol substitutes which may not be so easily amenable to taxation as petrol. Hence the Provincial Governments should seek other sources of revenue to supplement their share in petrol taxation. Fees for registration and for drivers' licenses are levied in most provinces; but as they are intended to cover only the cost of administration they yield no surplus for road development. Vehicle taxation is a common method of taxing motor transport in foreign countries. For example, in Great Britain the vehicle tax is the mainstay of the Road Fund, producing in 1927 a revenue of £17 million out of a total of £18 million. Except in the Punjab and the United Provinces, and except for a few local bodies in the Madras Presidency there is no vehicle taxation in India.

The provinces might with advantage explore this source of revenue for road development. Central taxation on motor transport has been considerably reduced in recent years and the Provincial Governments should seize the opportunity to impose taxation on the users of motor vehicles to develop their system of road communication. The Taxation Enquiry Committee recommended that motor-vehicle taxation should be provincial and not local and that local bodies which now draw revenue from motor vehicles should receive compensation.⁷ The tax, however, is not likely to be very productive. In the U.P. it yielded only Rs. 2 lakhs, and in the Punjab in spite of an elaborate schedule of rates the total receipts in 1927 were less than Rs. 3 lakhs. Just as considerations of uniformity require vehicle taxation to be provincial and not local, similarly it would be advantageous if the provincial taxation on motors were uniform throughout India. As regards the scale of licenses for vehicles plying for hire one particular aspect has to be stressed. Such vehicles do serious damage to the roads. The license fee may be utilised to limit the number of vehicles that may ply on a given road and thus adjust public traffic to road capacity. It is the practice in most countries that the proceeds of such licenses go to the local authorities. The Provincial Governments however may elaborate a scheme to enable local authorities to derive revenue from such sources with due regard to the problem of correlating the road traffic with the capacity of the road to sustain the traffic. To reach the road users other than owners of motor vehicles special taxes may be levied. Bullock carts do considerable damage to roads. They should therefore pay a small annual tax to the local authorities such as District Boards. Where no road-cess is levied and where tolls are not in force an annual tax on carts appears to be fair and hired carts may be taxed at a heavier rate than those used by the cultivator.

On account of the many different forms of taxation—central, provincial, local—on transport, there is a risk that the total weight

⁷ *Vide* Report of the Taxation Enquiry Committee, p. 303, para. 418,

of taxation may be so great as to hamper the trade. Moreover taxation by one authority encroaches on the fiscal sphere of another. For example, under the Scheduled Taxes Rules it is within the competence of the local, provincial and central authorities to impose a tax on motor vehicles. Under the Devolution Rules however it is practicable to fix maximum limits of taxation on motor by local bodies and Provincial Governments. Similarly in the case of petrol it will be necessary to delimit the fiscal powers of the various taxing authorities. There are two feasible alternatives. One is that the Central Government imposes a rate sufficient to cover expenditure on all-India roads while the provinces add a further rate sufficient to cover expenditure on their own roads. It has the disadvantage that two authorities rely on the same source of revenue and one of them by over-taxation may damage the other's revenue. It may then become necessary for the Central Government to limit the provinces' power of taxation which will be looked upon by the provinces as interference with and encroachment upon their just domain. The other alternative is that the whole of the tax on petrol should be levied and realised by the Central Government and distribution made to the Provincial Governments and through them to the local bodies to compensate them for the surrender of their power of taxation.

4. Reform of Road Finance: Miscellaneous.

It remains to consider how far road development may properly be financed from loans. On this subject there is great difference of opinion. The Royal Commission on Agriculture advocated financing of roads by loans. In their opinion, "The development of all roads would undoubtedly be much more rapid if the policy of financing a road programme from loans rather than from current revenues were accepted."⁸ The Road Development Committee on the other hand opined that they would "deprecate large schemes

⁸ *Vide* Report of the Royal Commission on Agriculture, p. 374, para. 306.

of road expansion financed by loans, for the service of which provincial revenues might be mortgaged for long periods, while other departments of government which may not be less important are starved.”⁹ Of the Provincial Governments the Punjab memorandum laid down that ordinarily road development should be financed out of ordinary revenue while Madras, Bengal, Bombay, the United Provinces, Bihar and Orissa, and Central Provinces made it clear in their memorandum that in their opinion road development is a proper charge on capital and should be financed from loans.¹⁰

Those who do not favour a loan policy point out that the construction of a road, generally speaking, is not a productive undertaking, the capital and recurring charges being heavy and direct return comparatively small. They lay special stress on the rapidity with which the annual charges of maintenance increase and threaten to outrun the financial resources of the provincial authorities. They, however, make an exception in the case of early stages of a programme of road construction in a province which can confidently look forward to new recurring receipts with the development of the country with which the maintenance costs and debt charges can be met, and also in the case of a bridge since the recurring cost of maintenance as compared with that of a road is negligible. On the other hand, those who favour road-building out of capital costs urge the necessity for rapid development of roads and the incapacity of current revenue to finance them. As in all works of permanent utility the burden should be borne not by the budget of any particular year, but should be distributed in the shape of interest payments and sinking fund charges over the lifetime of the asset the annual amount required for the amortization of the loans raised for the purpose of road construction

⁹ *Vide* Report of the Indian Road Development Committee, p. 46, para. 84.

¹⁰ *Vide* Road Development Committee, Evidence, Vol. I, pp. 124, 14, 62, 83, 96, 187, 209 respectively.

should not be a heavy charge on a province as roads and works connected with them are works of a quasi-permanent character.

It is not possible to define the limits within which construction of bridges and roads should be provided by means of borrowed capital or current revenues. Ordinarily current revenues are inadequate to finance large schemes. At the same time it must be borne in mind that borrowing must depend on the capacity of the provincial budget to bear the debt charges. It may be laid down as a general proposition that large schemes may be financed from loans and small schemes from revenue, and that funds raised by special taxation earmarked for road development or grants from central revenues for road development should be used primarily to cover debt charges in the case of the large schemes and only the balance to supplement revenue in the case of small schemes.¹¹

It is frequently suggested that railways may contribute towards the construction and upkeep of road which is mainly used as a feeder to a railway station. The local body very often incurs heavy expenditure on such roads without much benefit to the area through which the roads pass. When pressed for an answer the Railway Board sought shelter in the Indian Railways Act and the Devolution Rules which, as they stand, make it doubtful whether any contribution is legally permissible.¹² It would be desirable to amend the existing law so that the railways may be compelled, or at least permitted to contribute to the cost of building and maintaining feeder roads which bring traffic to their stations.

Another direction from which financial assistance may come to the road authorities is the army. The army is interested in roads in more than one way. It uses roads for military transport in times of peace and it also uses roads for mobilisation in times of war. Further as is stated in the written memorandum submitted by the

¹¹ *Vide* Road Development Committee, Evidence, Vol. II, Oral Evidence of the Secretary to the Government of India, Finance Department, p. 190 *et. seq.*

¹² *Ibid* , pp. 444 and 445.

Army Headquarters any measures tending to increase the scope of mechanical transport will benefit the Army.¹³ No country can maintain in peace sufficient mechanical transport to meet its potential war requirements. Therefore every encouragement given to civil transport increases the value of roads for military purposes. Apart from the direct and indirect benefits derived by the army from the roads constructed and maintained by civilian expenditure military transport causes heavy damage to the roads. It would thus be fair to expect the army to make a contribution towards cost of repair for damages done by it and towards the upkeep of those roads which are of great importance such as the trunk roads. At present a part of the cost in the Cantonment area and in the North-West Frontier Province is borne by the Army Budget. The principle should be extended so as to cover all those road systems which are of military value and to which serious damage is done by military transport.

Tolls are a common method of raising revenue with Indian Provinces. Road tolls are levied by all the local boards in the Madras Presidency at rates which are subject to a maximum fixed by the Government under the Act. The income of the local boards from this source is very large, because the great bulk of the roads is maintained by the local bodies whose resources are none too great for the services entrusted to them. In 1924 the total realisations amounted to Rs. 29 lakhs. In Bombay they are levied on main roads by the Government and on minor roads by the local authorities. In the United Provinces a large sum is raised by tolls. In the remaining provinces tolls are not levied at all or levied only for special purposes such as the construction of a bridge.¹⁴

Road tolls are a method of taxing the users of the roads for the purposes of the roads. It is generally claimed that they are paid in direct proportion to the use made of the road, that they are paid only in small sums and that it is a form of taxation which

¹³ *Ibid.*, p. 433.

¹⁴ *Vide* Report of the Taxation Enquiry Committee, p. 301, para. 415.

in a poor country like India cannot be easily replaced. But tolls have met with universal condemnation at the hands of all but those that levy them. The Taxation Enquiry Committee as well as the Road Development Committee have declared against them with unequivocal voice on the grounds that they obstruct and delay traffic, that they interfere with inter-provincial movement of goods and that they eat into the profits of the small agricultural producer. Both the Committees have recommended that tolls on traffic should be abolished and that, in their place, it would be practicable to levy, as in England, a provincial tax on motor vehicles the proceeds of which may be given over to the local bodies responsible for the maintenance of roads.¹⁵ Tolls on bridges, however, must be distinguished from road tolls in general. Tolls in such cases may make a substantial contribution towards the cost of the work without which perhaps it could not be undertaken.

Surcharges on land revenue, cesses as they are called technically, are an important source of revenue for local bodies in India on whom rests the responsibility of maintaining most of the roads in their areas. In Madras, Bombay, the Punjab, Burma, Central Provinces and Assam the realisations from the land-cess are used by the district boards not merely for the purposes of roads but also for medical relief, education, veterinary, etc.¹⁶ In Bihar and Orissa the "local cess" includes both road cess and public works cess and is levied at the rate of one anna on each rupee of the annual value of lands and the annual net profits of mines, quarries, tramways and railways.¹⁷ In Bengal the yield of the local rate known as "Road and Public Works Cess" which is paid by all who pay land revenue at the rate of 6 pies per rupee is made

¹⁵ *Vide* Report of the Taxation Enquiry Committee, p. 302, para. 418; Report of the Road Development Committee, p. 52, para. 94.

¹⁶ *Vide* Report of the Taxation Enquiry Committee, p. 311; Road Development Committee, Evidence, Vol. I, pp. 17, 68, 87, 161, 313, 251 respectively.

¹⁷ *Vide* Road Development Committee, Evidence, Vol. I, p. 192.

over to district boards for the construction and maintenance of roads.¹⁸

The principal merit of the land cess lies in the consideration that it is a tax *in rem* applied for the benefit of property which profits by the activities of the local boards. And when the proceeds of the local rate either in *toto* or in part are specifically earmarked for improvement of communications it answers to the regulating principle of local taxation, viz., charges levied according to benefits received. The tendency in the policy of the Provincial Governments is in the direction of a standardisation of the rate of land revenue at a comparatively low rate, thus making it possible for local bodies to derive an increasing share of their revenue from land. In these circumstances the obstacles to an increase in the local rates disappear. The district boards will then have at their command a field of taxation which will enable them to a great extent to discharge their onerous responsibilities such as communications, medical relief, education and public health.¹⁹

District roads are roads connecting district headquarters to tahsil headquarters or to large markets or roads connecting one district with another. These roads should be constructed and maintained from provincial and local revenue on a 50: 50 basis. Construction and maintenance should be through the agency of the District Board Staff but under the supervision of the Provincial Road Board.

The necessity for the development of roads other than main roads has often been lost sight of. Thus the Road Development Committee was bound by the terms of reference to consider the arterial roads of India and its Report offers no guidance on the subject of subsidiary roads and village communications. The main roads may be adequate for every form of transport, but they

¹⁸ *Ibid.*, p. 87.

¹⁹ *Vide* Report of the Taxation Enquiry Committee, p. 313, para. 439.

will be of little benefit to the cultivator if he has no access to them. What matters most to him and therefore to rural welfare generally is the state of the road between his village and the main road and his market. The Royal Commission on Agriculture considered it unfortunate that the growing sense of the need for improving main roads should divert attention from the need for improving the subsidiary communications which are of even greater importance to the cultivator. In their opinion along with the policy of developing main roads should go that of developing communications between them and the villages which are not situated immediately on them.

The development of village roads like the development of the main highways is a matter of finance. There is no doubt that the construction of new roads is beyond the resources of the villages or their panchayets and assistance from provincial or local board funds will be required. Some of the Provinces have already realised the need for village roads and the paucity of village resources. In Madras the Government gives an annual grant of several lakhs of rupees for the construction of village roads subject to the condition that an equal amount is provided by the district board. In Burma too there is special provision for rural communications which amounts to about a lakh of rupees every year. In the Punjab the Communications Board has offered a two-thirds grant-in-aid to any district board which submits a programme for improving village roads in a group of villages. The maintenance of the village roads as distinguished from construction is on a different footing. That is a matter entirely for the village community. Even where their financial resources are not adequate enough to carry the small burden of maintaining the village roads they could utilise the corporate labour of the village for this purpose. There are long periods in the year when the villager is compelled by the exigencies of his occupation to be idle and the utilisation of some of the spare time on the improvement of his roads should make a strong appeal to him. The panchayets reviving the tradi-

tions of corporate labour in the villages of India should prove useful agents for this purpose.

5. Co-ordination of Road Development.

The rising cost of labour and material, the increasing strain on the local resources and the rapid expansion of motor traffic have convinced the Provincial Governments that construction and maintenance of roads are no longer matters of purely local concern. Road Boards have been established in Madras, Bombay, the United Provinces, the Punjab and Burma.²⁰ Their functions are in the main to advise the Government in the form of recommendations on all problems relating to the extension, classification and financing of roads. But in the Punjab and Burma the Communications Board, as it is called in those provinces, has large functions of control and initiation of road schemes. The Punjab Board not only classifies the roads but also administers the grant-in-aid from provincial funds which are given for construction and maintenance. The Burma Board exercises similar powers. In 1924 it considered 241 projects and approved of work of the value of Rs. 467 lakhs. The Board has been of great use in securing from the Legislative Council the supply of funds necessary to carry through the programme of work which has been discussed and settled by the Board.

It has been suggested by the Local Governments in their memoranda to the Road Development Committee that as just as the Provinces have their own Road Boards so also a Central Road Board should be created by the Government of India to co-ordinate road development throughout the country. The suggestion involves that the Board should be an independent executive body charged with the administration of a specific road fund such as the one arising from the proceeds of taxation on motor vehicles or motor spirit earmarked for this purpose. The creation of a Road Board like the one contemplated by the suggestion would

²⁰ *Vide* Report of the Royal Commission on Agriculture, p. 372.

be an encroachment on the proper sphere of the Government which is not justified by the circumstances. Neither can a subject which is closely associated with the economic life of the country and with many branches of public administration be removed from the control of the Legislature. It will also lead to undue interference and friction with the local governments. In foreign countries the administrative authority for roads is not an independent board, but simply a department of government which controls all branches of transport including roads, e.g., the Ministry of Transport in Great Britain, the Federal Department of Agriculture in U.S.A., the National Service of Roads and Bridges in France. Working on these lines the Government of India should bring together all matters relating to transport into one Department of Communications. Such, in fact, was the recommendation of the Indian Railways Committee and it has been repeated by the Indian Retrenchment Committee and Road Development Committee.

There is general agreement that there should be some authority other than a technical department of Government to co-ordinate the road programme of the Provinces, to study questions relating to the construction and maintenance of roads, to provide for road research, to collect statistics and to advise with taxation of road transport. The Road Development Committee has made the most useful suggestion that there should be a Road Conference of representatives of the Government of India and the Local Governments who would meet from time to time to exchange views on matters of common concern and to co-ordinate the work of the Provinces.

There remains the problem of administering the grants from central revenues for road-building like the proceeds of the petrol duty which, it is recommended in this Paper, should be set aside for the construction and maintenance of roads. A convention should be established whereby the Legislative Assembly would vote the yield of the petrol duty as a block grant for expenditure on road development. To ensure continuity to the Provinces the

convention should last for a period of years and the unexpected balances of any one year should be carried to the next year. The Assembly may exercise control over the expenditure of the annual grant in three ways: In the first place it will have to approve the general principles according to which the grant may be spent. Secondly it will appoint a sub-committee without whose approval no expenditure from the annual grant shall be incurred. Thirdly it will have its own Standing Committee for Roads which would advise the Governor-General in Council on all matters relating to roads.

THE READJUSTMENT OF THE INDIAN FINANCIAL SYSTEM

BY

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SYNOPSIS

Indeed the chief defect in the present financial system is the inelasticity of provincial revenues, but we will be making a dangerous mistake if we suppose that the needs of the Central Government are contracting or will remain stationary; for, the function of the Government of India as a co-ordinating agency in the developmental services is bound to increase in the future. Therefore, any sound scheme of financial reconstruction must provide for elastic resources both for the Central Government and for the provinces.

Two principal methods have been suggested for re-adjusting the present system—(1) the transfer of income-tax to the provinces and excise to the Central Government, and (2) making income-tax the balancing factor. Of these the second seems the more desirable. How is income-tax to be made a balancing factor? Not by two separate income-taxes as in Australia, nor by surcharges as in Continental Europe, but by one central levy, the collections being distributed between the provinces in some equitable manner.

The division of the income-tax revenue between the two governments may be made (i) in fixed proportions, or (ii) by distributing the revenue from the various sources to each government according to their natural affinities; or better still (iii) by making it part of a national fund from which grants may be made

to the various provinces according to their real needs. As income-tax is not the only revenue to be so distributed, and as uniformity of progress between provinces is desirable, the third alternative seems to be the most acceptable, provided the national fund is so administered as not to result in the evils which the system of doles gave rise to in the past.

The present system of financial apportionment between the Government of India and the provincial governments is considered to be defective in the following respects:—

1. It favours the ' agricultural ' provinces at the expense of the ' manufacturing ' province.

2. The sources of revenue allotted to the provinces are rather inelastic, whilst provincial expenditure is expanding and must expand in the interests of national development.

3. To the Central Government have been assigned elastic sources of revenue, although its needs are not expansive.

4. Under the present system there is considerable difference between provinces in their *per capita* burden of taxation.

5. The incidence of our tax-system is not equitably distributed as between the economic groups in the country.

Of the above points of criticism, the first is based upon a fallacious interpretation of the past history of financial relations between the Central Government and the provinces; and the fourth, which is allied to the first, is untenable, as we have no scientific data for accurately estimating the incidence of the Indian tax-system as a whole. Further, even if it were true that the *per capita* incidence varies from province to province, our tax-system would not stand condemned by that fact alone; for, their *per capita* income also varies similarly, and hence their taxable capacities. Further, it is but reasonable that those who benefit most by the Central Government and its agencies should

contribute more for its upkeep than others who benefit less. I shall not enlarge upon these two points as they have been adequately examined elsewhere. Further, there is nothing gained at the present juncture by exposing the iniquities of our financial system in the past. As the Government of Bombay has rightly pointed out in its memorandum to the Simon Commission, whatever may have been the gains or losses of the different provinces in the past, "considerations of practicability require that any proposed change should not affect the various provinces adversely as compared with their present financial position." We will, therefore assume that from no province will be taken away any part of the resources now enjoyed by it, although a re-adjustment might change the sources wherefrom the present revenues accrue.

The second, third and fifth points of criticism raise really material issues, and any suggestions for the re-adjustment of the system must necessarily concentrate on them.

The central problem facing us may therefore be stated thus:—The most fruitful sources of taxation in any developing country are customs and income-tax. These sources are in India allotted to the Central Government, while the provinces have got to pull on, as best as they could, with such stationary or falling sources as land-revenue and excise duties. This state of things does not square with the nature of expenditure which these two governments have got to meet. For, whilst the financial requirements of the Central Government are comparatively stationary, the provinces have to administer such expansive services as education, medical aid, sanitation, agriculture and industries, which are so essential for the material and social development of the nation. The result has been that in many provinces, the Ministers who were placed in charge of the 'transferred' functions of Government found it difficult to do justice to their duties.

The above statement of the case is liable to a serious misunderstanding. Whilst it is true that the provincial services are of great immediate utility and call for urgent development, it is

not fair to say that the central services are stationary or that those services are of less urgent need to the nation. Those who regard the central services in that light have in mind the large sums spent on military equipment. It is easy to inveigh against military expenditure but it is not so easy to discover means whereby that expenditure could be substantially cut down. In spite of the League of Nations' discussions and the Hague Conferences, disarmament is still only a distant goal; at any rate, it will be rather long before war is abolished from our part of the world. Nor will the attainment of the goal of self-government improve the situation, because a self-governing India will have obviously to spend larger sums for its army and will have to create a new navy in addition.

Even in the developmental services, the expenditure of the Government of India is likely to increase in the future. Considering the rapidly growing speed of long-distance transport—mark the impending success of commercial aviation—it is certain that the world is fast shrinking into a little place and even the sub-continent of India may soon become a country of short distances. This will necessitate the Central Government assuming certain new functions and extending others which are now inadequately fulfilled. Already in many development services, the Central Government has been compelled to fulfil a co-ordinating function, especially in regard to research, and judging from recent developments in the United States and other federal countries, this function of the central authority is bound to increase in future both in extent and intensity. In agriculture alone, a subject controlled by the constituent States, the Federal Government of the U.S.A. spent in 1928 nearly 160 million dollars (about 44 crores of rupees) which is equivalent to a third of the whole annual expenditure of the Government of India. Our country has only started on this road by establishing the Council of Agricultural Research, and all indications point to a large expansion of such essentially needed central activity in spheres which are primarily provincial. As

the Royal Commission on Indian Agriculture has pointed out, India's need for federal expenditure in agriculture are as great as those of the U.S.A., and only the means are lacking at present. In these circumstances would it not be futile to limit the revenue resources of the Central Government? And how much more mischievous would it be to limit its future expenditure (as has been done by certain recent writers) by fixing a round sum, which is below the present level of expenditure?

It is not denied that the provincial services are expanding and must expand in the interests of social development. They must be provided for by finding expansive sources of revenue, but this should not be at the expense of the central revenues (*pace* Government of Bombay). Both the Central Government and the provinces must be given some elastic sources of revenue and must be enabled to fulfil their growing functions: the one need not look for gaining at the expense of the other. There must be found means for additional taxation in order to increase the resources of both.

The re-adjustment of the financial system involves two things—(i) apportionment of the existing revenues on a new basis and (ii) the imposition of new taxes to meet the growing expenditure in the provinces. Of these, I shall deal mainly with the first in the present paper.

Many alternatives might be suggested for giving the provincial governments some expansive resources. I shall here consider only two of them:

- (a) Transfer income-tax to the provinces and excise to the Central Government.
- (b) Divide income-tax between the Central and Provincial Governments, and make up for the deficit in the central budget by centralizing non-judicial stamps.

The first suggestion may, *prima facie*, appear feasible and even generous to the Central Government since the new revenue

head which it would come by would bring to it Rs. 19 crores in place of the Rs. 16 crores which it now receives as income-tax. Other points that might be urged in its favour are: (1) that it would be in keeping with federal practice elsewhere; (2) that the existing anomalies in excise rates between the provinces might be done away with by introducing uniform law and rates; and (3) that any effective restriction in the use of liquor is only possible if pursued as a central measure which will affect Indian States as well as the Provinces.

Against the centralization of excise may be urged: (1) that the conditions of India in respect of the manufacturing of liquor are not on all fours with those of the federal countries; (2) that the Central Government would find it difficult to stiffen up administration and suppress illicit practices in a field which so closely touches the lives of the people; and (3) a more important reason: To make prohibition hinge upon the reduction of military expenditure may weaken the defence of the country. As Adam Smith has remarked, defence is more important than opulence, and it is in the highest interests of the country to give the Central Government more stable and certain sources of revenue than liquor excises, which are to-day threatened with extinction by the progress of the prohibition movement.

In these circumstances, the first alternative suggestion must be given up as impracticable and even dangerous. To centralize non-judicial stamps is quite a simple matter, for this was vehemently urged by most provinces in 1919, and the Finance Members' Conference of 1926 had recommended it. But when we come to the question of dividing the income-tax, we are up against innumerable difficulties, technical, legal and even moral.

Being a source of revenue with diverse ramifications, income-tax cannot be said to belong by natural right to the Central Government or the provinces unlike land-tax or customs. Neither the Central Government nor the provinces can put forward any exclusive claim for it, as the income of the people is the central

source from which the coffers of both governments should be filled. Hence the practice in most federal countries, where both the Central Government and the provinces levy income-taxes.

From first principles it is clear that to provincialize income-tax wholly would deny to the Central Government one of the most expansive sources of revenue and would unfairly benefit those provinces where incomes accrue without being wholly earned locally. The rival claims of origin and domicile would create problems not too easy for settlement, especially in the case of taxes on companies. It is also clear that to allot it wholly to the Central Government, as now, is unfair to the provincial governments, under whose immediate protection the incomes are earned and who would legitimately look forward to an expansive source of revenue to meet their expanding expenditure. The Meston Committee itself admitted that it would be impossible to exclude the provinces permanently from a share in the income-tax revenues. The conclusion that forces itself upon us is that income-tax cannot be allotted to any one Government and must be left as a balancing factor. Therefore, without reviving the annoying system of 'divided heads,' a way must be found to apportion income-tax between the Central Government and the provinces in some equitable manner.

Various methods may be suggested:—

1. Separate income-taxes might be levied, as in Australia and U.S.A. In Australia, two distinct sets of officers collect the taxes, while in Massachusetts (U.S.A.) the federal officers collect the State-tax as well. In either case, the system is expensive and annoying and in Australia it has been condemned by an expert Commission in 1920, and a modification is contemplated.

2. Another alternative is the system obtaining in France and other continental countries, in which the Central Government assesses the tax and *centimes additionnels* are added on to it (on the model of our cesses) for local purposes. This system, however,

will not work in India as our tax is levied at source as well as at destination unlike the continental levies; and further, what is adequate for meeting the limited needs of local bodies in the small country-states of Europe can hardly suit the requirements of our provinces which are themselves as large and populous as the larger of those States.

3. The only feasible system for this country would therefore seem to be to allow one government to assess and administer the tax, the proceeds being shared by the two governments in some equitable manner. The levying authority must certainly be the Central Government, for it is essential that there should be uniformity in the income-tax law and rates of assessment, as any variation in those between the provinces would create considerable difficulties.

Various alternative suggestions may be made for the division of the proceeds between the two governments.

1. The division may be effected on the basis of *fixed proportions* (say, one-half). This is how, in Germany, the income, inheritance and turn-over taxes are divided between the Reich and the Länder (States). The Government of Bombay has recommended the division of the income-tax revenue between the central and provincial governments in India on the above basis, but this proposal, if carried out, would give rise to complications in respect of the rival claims of origin and domicile. The Bombay Government wants to have 50 per cent of all incomes assessed in Bombay Presidency, but it forgets that a good part of the incomes accruing in Bombay is earned in other provinces or Indian States, and especially in these days when businesses operate on all-India scale, we cannot say what part of the incomes taxed in a particular province was earned there. The case of the Tata Concerns is in point. Further, such a division may also revive all the annoying controversies that the old "Divided Heads" produced in the past.

2. A second alternative is to divide the income-tax revenue into its component parts and allot to each government those

portions which may legitimately go to it. In such an apportionment, all revenue from absentees should doubtless go to the Central Government, and so should all super-taxes seeing that the larger businessmen benefit by central agencies such as posts and telegraphs, railways and harbours than small traders. On the same grounds, the tax on companies may also go to the Central Government, for their operations cannot go on without the help of the inter-provincial agencies just mentioned, and further they are regulated by the Indian Companies law. The rest of the income-tax collections must go to the provincial governments to meet their growing needs.

Many objections may be raised against the above system of apportionment. The first is that a large deficit would result by it in the central budget. The revenue derived from personal incomes makes up the bulk of the income-tax collections, and as the whole of it will go to the provinces, the Central Government's funds will be materially reduced. To this, we may answer that the rift in the central fisc may be closed up partly by centralizing the non-judicial stamps, and partly by levying new taxes. Further the productiveness of those portions of the income-tax which will go to the Central Government may be increased by careful nurturing. Is it not possible to levy a separate corporation profits tax, as in the U.S.A.?

The Government of Bombay lays a claim to the whole of super-tax collected by it, but it is well to remember that a considerable portion of such revenue is really earned in some other province or in some Indian State and is only assessed and collected in Bombay. Such rival claims of origin and domicile make that part of the income-tax a legitimate source of central taxation.

Another argument against the system of distributing income-tax is that it does not enable the poorer or less developed provinces to increase their revenues. Whilst Bengal, whose income-tax collections are 50 per cent of its whole provincial revenue, would indeed gain by the transaction, Central Provinces, and Bihar and

Orissa whose income-tax collections represent 6 per cent and 9 per cent (respectively) of their total provincial revenues, would gain little by this readjustment. If our aim is to enable all the provinces to advance at an equal pace, so far as possible, any new principle of readjustment must take account of the claims of the more backward provinces. As Mr. W. T. Layton has rightly pointed out, the present provinces of India are "not suitable, self-contained fiscal units entitled to all the revenues arising in them—subject only to a proportionate contribution to the central budget." India's aim is to be a nation and a commonwealth—be its constitution federal; and naturally it follows that the Central Government should utilize the resources of the country in such a manner as to foster the backward provinces without inordinately sacrificing the advanced ones. At any rate in distributing those revenues, which are on the borderlands of the central and provincial spheres, it is necessary to look to the *needs* of the different provinces.

3. The recognition of the principle just noted has brought to the forefront a new basis for the apportionment of revenues. This may be applied not only to income-tax, but to other revenues to be levied in future by the Central Government, but we will only consider it here in relation to income-tax. The proposal is to consider the whole income-tax collections as a national fund from which the provinces will be given assistance for nation-building services by means of grants based on their needs, these being measured by their population, extent of territory and so forth, and not by their importunities, which have in the past not infrequently influenced the distribution of resources between the provinces.

This system would be analogous to the grants-in-aid from federal revenues which largely obtain in U.S.A., Canada, Germany and other federal countries and is becoming common even in the unitary states for financing local bodies. Nor will it be substantially different from the system of grants made by Government

of India to the provinces before 1919, the chief difference being that the old system arose out of the need for utilizing unwanted surpluses accruing in the central treasury while the new is part of a co-ordinated system of finding a steady flow of funds for much-needed provincial services, from revenues which can only be effectively collected by the Central Government.

In the ideal, a financial system in which all taxes are collected by one central authority, the proceeds being distributed among the provinces according to their real needs, may look very nearly perfect, even in the case of a federation; for it would do away with all wranglings; all conflicts of rates and law would cease, and the provinces will have only to devise the best means of spending their resources.¹ And in states whose territorial extent is limited and whose population is economically homogeneous, this would seem to be the most economical, even if they are federal in constitution. But in a sub-continent like India whose diversities are colossal and whose population is heterogeneous and whose provinces differ considerably in wealth and in economic avocations and capabilities, no such ideal system seems practicable. In such a country, each province must have its own revenue sources which must be kept distinct from those of the Central Government. Yet even in such a State, over and above the distinct revenue resources allotted to the two governments, there might be a national fund, fed from central taxes, but utilised for supplementing provincial revenues, or more particularly, for financing those provincial ventures which are essential for national development. Income-tax may quite appropriately become the nucleus of such a fund.

Indeed the 'doles' made by the Central Government before 1919 were not very popular with the provinces. They were disliked because of the interference that they brought on the provincial governments and because of the inequalities in their distri-

¹ See Report of the Decentralisation Commission, Vol. I, pp. 35—37, Vol. VIII, p. 230.

bution. When, by some reason, the Central Government's revenues improved in one year, the surplus was utilised in making special grants to the provinces, earmarked for certain purposes like education and sanitation; and they had no liberty to utilise those grants for any other more urgent purpose. Schemes had to be drawn up by the provincial departments concerned and this had to be approved in detail by the Central Government, and from time to time accounts had to be submitted. All this involved considerable interference with provincial authority and hence the loud complaints against those 'doles' before the Decentralisation Commission. Further, provinces like Bombay received more than their legitimate share of these grants and this also produced grumblings in the provinces.² There is no doubt that both these evils can be avoided, the latter by an acknowledged norm of grants and an impartial authority to apply it; and the former by a careful definition of the modes and purposes of supervision by the Central Government. In U.S.A., the grant-in-aid, called Federal Aid, have lately assumed large proportions, especially in agriculture, high roads and vocation education; and although complaints have been raised against increasing central control, it is definitely understood that the supervision exerted is to be of the nature of advice or suggestion rather than minute and meticulous interference. In Germany and Canada also, such grants-in-aid have become a normal part of their financial systems.

² For instance, the Major Provinces shared as follows the recurring grants for education, from 1911-12 to 1919-20 :—

Province.	Population.	Grant.
Madras	41½ mil.	28.50 lakhs
Bombay	19½ mil.	21.45 lakhs
Bengal	45½ mil.	41.81 lakhs

See Parl. Paper Cmd. 974 (1920), Financial Relations, p. 31.

To select between the alternatives above detailed is no easy matter. The first may not be advisable as it would not lead to equitable results; but the second and third present various features which are valuable and acceptable. If income-tax were the only resource to be partitioned, I for one would have preferred the second method mentioned above, but more revenues are now urgently needed by the provinces and as those sources cannot be effectively tapped by them, we are constrained to resort to the third alternative of raising certain taxes centrally and distributing their proceeds among the provinces. For the efficient and equitable working of such a system, a new federal authority is necessary, and that authority must be so constituted as to command the confidence of the provincial governments. Nor is the distribution of the funds to be left to the unfettered discretion of this new authority: a practicable principle of apportionment between the provinces must be laid down by rules with statutory sanction. Judging from the past history of our financial relations, this latter provision is of the utmost importance for ensuring peace and goodwill between the provinces.

If the 'doles' fell into bad odour in olden days, it was because an iron system of centralization then governed the relations between the Government of India and the provinces. Now that provincial autonomy is within sight and popular control of government is steadily advancing, there is no justification for the fear about the grants causing undue interference or being distributed unequally between the provinces. I am among those who believe that federalism is the right goal for India, but a rigid system of provincial particularism can only be harmful in the present conditions of India, and the trend of economic developments is altogether against such particularism. Whilst it is necessary to have an autonomous administration for each province, and necessary also to make each province depend principally upon taxes levied and collected by itself, no real liberty or convenience is sacrificed by its receiving, from the central exchequer, revenues

needed for supplementing its funds, *provided* the collection and distribution of such funds is left to the responsible representatives of the people of the province acting under advice from expert bodies, whether provincial or central. This seems to be the most practicable way for giving to the provinces the funds required for their expanding social utility services, in such a way as to ensure some uniformity of progress among the constituent states of the future Commonwealth of India.

AN ABSTRACT OF THE ARTICLE ON ' SOME ASPECTS OF LOCAL FINANCE IN BENGAL '

BY

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SYNOPSIS.

Introduction.—Importance of the Subject.

Short description of the present structure of the local self-government. Machinery in Bengal—Existing financial system of municipalities, district boards and union boards.

Financial relations between local bodies and the central authority—the loco-national services—how the burdens are to be equitably adjusted—grants-in-aid—the underlying principles of a sound grants-in-aid policy.

Three alternatives for the improvement of the financial position—(a) Retrenchment of functions; (b) Development of resources; (c) Raising loans—our study mainly concerns with the second alternative as the best of the three.

Good features of the municipal tax-system—ways in which it admits of development—(1) simultaneous levy of the tax on persons and on holdings in different wards of the same municipality, lands and holdings to be separately assessed in respect of the holdings tax; (2) tax on professional incomes to be developed; (3) taxation of industrial profits; (4) tax on amusements and advertisements; (5) license fees and permits; (6) special assessments and betterment fees.

Suggestions for the development of the resources of the district boards:—(1) Unearned income of landlords to be taxed, special assessments to be levied in respect of lands immediately benefited by some local improvement; (2) Higher middle classes

and professional classes to be taxed through a state in addition to income tax on Prussian lines; (3) Relief from certain obligations as recommended by the Decentralisation Commission. Suggestions with regard to union boards:—(1) The flat rate to be replaced by a variable one varying according to the amount of property assessed as well as the nature of the source of profit; (2) Tax on litigation, market and fairs, license fees, etc. Some suggestions for the improvement of assessment, collection, budget-making procedure, accounting and audit—Problem of local indebtedness.

Conclusion.

Suggestion for the establishment of municipal research bureaus to carry on systematic research on problems of local self-government and finance.

The field of study of local finance in India is a vast one but unfortunately it has not as yet received that amount of interest and attention, that its importance justifies. It is simply out of the question to attempt to tackle with such a vast problem with its manifold ramifications within the scope of a short paper like this. So we propose to confine our discourse to one particular area of the country, viz., Bengal and even within this restricted field we shall content ourselves only with certain aspects of the question with special reference to the scope of development of the resources of the local bodies. The problem of local finance in this country can be best approached by dealing with it territorially, because each province has its peculiar local features due to historical, social, economic and political causes—which require a separate study of its problems of local administration. Moreover the system of local self-government and finance has followed different lines of development in different provinces.

It would be best perhaps to preface our discourse with a short sketch of the organization of the local self-government machinery in the province. For purposes of local self-government local areas have been grouped under two distinct classes—(a) urban and

(b) rural, mainly on the basis of density of population. The urban areas are at present governed by the provisions of the Bengal Municipal Act, 1884 (Bengal Act III of 1884) in respect of the administration of local affairs with the exception of the city of Calcutta for whose civic administration provision has been made by a special act, viz., the Calcutta Municipal Act, 1923 (Bengal Act of 1923). We shall leave out Calcutta from our present study, as Calcutta forms a category by itself and its problems of administration and finance require special and separate treatment. The Municipal Act confers on municipalities powers for the due discharge of functions suited to the needs of urban areas. Each Municipal Council is to exercise such of the powers granted by the Act as it thinks necessary for its purpose.

Coming to rural areas, we find a hierarchical order of organisation. At the apex of the system stands the District Board for each District with Union Committees, Village Panchayats or Union Boards at the bottom and the Local Board as the intermediary link in the chain. The functions of the panchayats are quite circumscribed embracing only one side of the activities of local administrative bodies, viz., watch and ward. The constitution, functions, powers and duties of the District Boards, Local Boards and Union Committees are regulated by the Bengal Local Self-Government Act, 1885 (Bengal Act III of 1885). The functions of these bodies are to a certain extent overlapping. They look after public health and safety, roads and communications and other works of public utility, medical relief, education, specially in primary stages, pounds and public ferries, vaccination and so on within their respective areas and as far as their funds permit. The District Boards are concerned with the welfare of the district as a whole and try to supplement the work of the Union Committees and cover up the lacunæ left by the Union Committees. The Local Boards generally located in the sub-divisions form the connecting link between the District Board and the Union Committees. Their main function is to supervise and control the infant

committees in their work and guide them in the right direction. Moreover, they play the second fiddle to the District Boards by discharging some of their duties in a delegated capacity and relieving them of some part of their burden. It should be noted that they have no independent functions of their own but act simply as 'the agents of, and subject to the control of, the District Board' within the area subject to their jurisdiction. They have no separate finance, but are supplied with funds by the District Board for the purpose of control and administration of matters relegated to their care. They can again make over some part of their work in different areas within their jurisdiction to the respective Union Committees. So with the growth of the Union Committees in number, importance, and experience, the local board would tend to become a superficial link in the chain.

Then comes the Union Board which has of late become a very important factor in the development of local self-government in rural Bengal. They are governed by the provisions of the Village Self-Government Act of 1919. They have been designed to remove the imperfections of the Village Panchayats and Union Committees and to create perfect models of village communities based on the elective system with enlarged functions and powers. Union Committees or Panchayats are to be superseded where Union Boards are established. They combine the functions of watch and ward with that of ministering to all local needs, such as, conservancy and drainage, communications, public instruction and education, and adjudication of petty cases, civil and criminal through Union Benches and Courts. They are under the immediate supervision and control of the Local Boards and also the District Executive Officers, and remotely under the control of the District Boards. Thus an attempt has been made to make the Union Boards with their many-sided activities the backbone of the system of local self-government in rural areas. This in short is a description of the structure of local self-government in Bengal. Let us now review the financial system of the various local bodies.

We shall begin with urban areas, governed by the Municipal Act. Every municipality administers a 'municipal fund' consisting of all sums received by the Commissioners by way of taxes, fees, tolls, income from any form of municipal property, etc. Provision has been made for a twofold check—by the public and the Executive Officers—on the budget-making powers of the Commissioners. Disbursements are authorised by the municipal commissioners within the budget allotments for different purposes. But the local government by rules may limit the powers of the municipality in respect to expenditure of money for purposes which are provided for in the budget. Municipal revenue accrues from various sources—(1) rates and taxes, (2) realisations under special acts, (3) receipts from municipal property and powers apart from taxation, (4) grants and contributions (for general and special purposes), and (5) miscellaneous. The principal rates and taxes are the tax on houses and lands, tax on animals and vehicles, tax on professions and trades, tolls on roads and ferries, water-rate, lighting-rate, conservancy (including scavenging and latrine fee) tax on persons and other miscellaneous taxes. Of these rates and taxes some are ear-marked for the maintenance and improvement of the services from which they are derived, e.g., the water-rate and the lighting-rate. Among the taxes and rates, the tax on houses and lands contributes the greatest amount and may be said to constitute the mainstay of municipal finance, the conservancy tax (including scavenging and latrine-rates) and the tax on persons giving the next highest figures. Municipal expenditure may be grouped under five broad classes—(1) general administration and collection charges, (2) public safety, (3) public health and convenience, (4) public instruction and (5) miscellaneous. Of the various obligations of municipalities, public health and convenience accounts for the greatest share of municipal expenditure. Costly undertakings which cannot be financed out of ordinary revenues are generally met by loans from the provincial government. Coming to the rural boards, we may

summarily dismiss the local boards as they have no independent finance of their own.

The principal sources of revenue of District Boards are local rates, receipts from canals, interest on advances made for various purposes, receipts under the Cattle Trespass Act, and fees and contributions in connection with education and medical instructions. But the main prop of district board finance is the road cess or a cess levied upon agricultural land over and above the land revenue, along with which it is collected, usually at the rate of one anna in the rupee ($6\frac{1}{4}$ per cent) on the annual rental value. Prior to 1913 the district boards did not receive the whole amount of this cess but in 1913 the entire proceeds of the cess were handed over to the boards by the provincial government as a result of certain assignments made to it by the Imperial Government.

The principal heads of expenditure of the District Boards are—General establishments, interest on loans, courts of law, cattle-pound charges, education, medical, pensions and gratuities, stationery and printing, famine relief, railways and local public works including buildings, communications, water-works, drainage works, bungalows and sarais, etc.

The revenue from the above sources is sometimes supplemented by means of loans. The district boards have been given general powers, under the act, of raising loans for the carrying out of the purposes of the act. They have also the power to subscribe to any debenture loan raised by the Government of India or by any municipal authority for the construction or maintenance of any railway or tramway which is likely to be of benefit to the district.

We shall now consider the financial system of the Union-Board, the lowest rung in the ladder of self-government in Bengal and not the less important for that all the same. They administer a fund to which the main contributions are grants received from the District Boards, proceeds of pounds, public ferries, miscellaneous fees and fines, private contributions and above all the

proceeds of a union-rate on all owners or occupiers of buildings within the union levied on the basis of 'circumstances and property' of persons 'within the union.' In fact this rate is the backbone of Union Board finance. The union boards follow a sort of apportioned system of taxation. The President annually lays before a meeting of the union a budget statement showing the various works intended to be carried out during the ensuing year, the estimated cost of each work, the estimated expenditure for the salaries and equipment of dafadars and chowkidars and the salaries of its establishment after the deduction of the Government contribution towards the cost of the chowkidars and dafadars, the probable income of the board from all other sources and the balance is sought to be adjusted by means of the union-rate. The expenditure for the salaries of chowkidars and dafadars and the cost of its establishment are obligatory and a rate must be levied to meet it but an additional levy to carry out any work of village improvement can be made only with the assent of a two-thirds majority of the members. It is intended that no work for the improvement of the conditions of the union should be undertaken without the sympathy and approbation of the people of the locality. Such a levy measures the confidence reposed in the board by the people. It provides in a way for self-taxation just in the spirit of self-government and takes away from the compulsory character of the tax. The future of self-government depends very much on the popularity of these bodies which would be impaired by their association in people's mind with a picture of the 'tax-gatherer.' The rate has been so devised as to bring within its ambit all residents in the locality except the very indigent who are unable to pay even half anna a month. Apart from its fiscal importance as satisfying all the accepted canons of taxation—ability, economy, certainty and convenience—it has an educative value. The assessment is to be made according to the circumstances and the property within the union of the persons liable to the rate in conformity with certain prescribed rules, provided

that the maximum amount payable in a year should in no case exceed eighty four rupees.

In determining the basis of assessment the board takes into account on the one hand, the ratepayer's avocation, his estimated income from all sources including his trade or calling as well as any real property within the union and his debts and liabilities on the other hand as also his mode of living and standard expenditure. The assessment list takes effect after due publication and final approval of the district executive officer who may call for its revision.

The next important source of their revenue is grants-in-aid from the District Board for carrying out the purposes of the act specially those other than the payment of chowkidars and dafadars such as works of improvement.

This, in short, is an account of the financial position of local bodies in Bengal. We shall now discuss on what lines it admits of improvement. In this connection we shall first consider whether any readjustment of financial relations between the local authorities and the provincial government and also among the local bodies themselves would conduce to that end and then we shall see how their finances can be set right either by broadening the basis of their resources or retrenchment of their activities.

Now the problem of proper financial relationship between the central government and local administrative bodies is closely interlinked with the division of administrative functions between them. The question is how to adjust the total financial resources of the community to its total administrative requirements, "how, in a word, in view of the necessary division of duties between central and local powers, the money may be most equitably raised and judiciously spent."

The division of services between the national and local authorities is based on the nature of the services themselves. It should proceed on the twin principles of efficiency and economy. With regard to a few services they can be solved simultaneously. Thus

defence can easily be classed as a national charge while drainage and sewerage, local water supply, etc., as local charges on these principles. But there is a border land on which the problem of adjustment is rather difficult, which may be claimed either by the national or local authorities. These may be designated as loco-national services. In fact the line of demarcation between local and national service is ever shifting. Services which were originally parochial may become provincial and even national, hence the relation of local to central finance must always be progressive. It would be unfair and inequitable to saddle local bodies with the entire cost of loco-national services such as sanitation, police, communications, primary education, etc., the benefits of which cannot altogether be localised, although from the point of view of economy and efficiency they are best administered by the local authorities. In respect of the administration of such services the Central Government should render financial aid in some shape or other to the local bodies. But as the character of the services, from the standpoint of the share of their benefits enjoyed by the locality or the community at large is ever changing the financial relations between the local bodies and the central authority should keep pace with such changes.

Only such services as are strictly local in the sense that their direct personal benefit can be individualised should be paid for out of the resources of the local bodies just as the services which are of general interest but benefit different classes and different localities in varying degree and which require centralised administration for the maintenance of a uniformly high level of efficiency should be charged wholly on the resources of the central government. In respect of all other resources there should be a careful adjustment of total available means between the central government and the different local authorities with a view to effecting an equitable distribution between local needs and the needs of the central administration and the maintenance of a high level of efficiency of all local bodies irrespective of their resources.

It is, no doubt, very difficult to maintain a balance in view of the dynamic nature of the relationship of local to central finance but the soundness of the entire fiscal system of a country is gauged by the approximation to this ideal.

In the adjustment of financial relations between the Provincial Government and the Municipalities and District Boards, we should work as far as practicable on the principles set out above. The Provincial Government should bear a share of the expenditure incurred by the municipalities on such heads as hospitals and dispensaries, vaccination, maintenance of dak-bunglows and sarais and education by means of subventions in proportion to the degree to which the expenditure in question conduces to the general interest of the province as a whole. A certain percentage of such expenditure should be made good by the local government but over and above this there should be provision for a general grant-in-aid to enable the poorer municipalities to make both ends meet and thus to render the financial standing of all municipalities uniform. A proper and sound adjustment of financial relations between the local government and municipalities and district boards will depend very much on a wise and judicious use of the grants-in-aid. We may, therefore, enumerate here certain general principles which the Provincial Government should follow in the distribution of grant-in-aid as given by Mr. J. W. Grice in his book on National and Local Finance. They are:—

- (1) Grants should only be given to services in which the general interest is predominant and the expenditure on which it is generally considered desirable to stimulate.
- (2) Grants should be made direct by a central department to the local authority in charge of the service, the latter being subject in all cases to thorough inspection and audit yearly.

- (3) Grants should be conditional on the efficiency of the service and variable, so as to increase the effectiveness of the central supervision and control.
- (4) Allocations of grants should be arranged so as to minimise the inequalities between different districts in respect of expenditure on loco-national services.
- (5) In no case should grants be given to objects which directly and obviously raise the value of fixed property in any locality.
- (6) Subject to these conditions being fulfilled, the grants should, as far as possible, and in view of all the circumstances, for financial and administrative reasons, be kept at the lowest proportion necessary to achieve all the purposes of grants-in-aid. They may, however, fairly vary as between the various services, according as (a) the element of general advantage is involved in the efficiency of any particular service, and for which the general purse should pay; and (b) the extent to which the particular Exchequer grant may have a prejudicial effect on the local administration of the service.
- (7) For the convenience of the Treasury the total of the grants might be fixed for a certain specified term of years, the details of allocation, and the special regulations governing them, being subject to periodic revision.

The financial relations between the District Boards and the other rural local bodies below the District Board should also be adjusted on the same principles. In this connection we may suggest the abolition of local boards, village panchayats and the union committees. Union Boards may take the place of the latter two, and there is a tendency in this direction. We have already seen how

the local board constitutes a superfluous link in the chain. It would become more so as a net-work of union boards ramifies through every creek and corner of the district and as with experience and training in their work the local inhabitants become more and more competent to shoulder the responsibility of managing all local affairs. The abolition of the local boards will make a saving in the cost of their establishments and this may be handed over to the union boards. The duties that were formerly delegated to the local boards may conveniently be transferred to the union boards with sufficient funds. The union boards should be made the backbone of the system of local self-government in rural areas from the stand-point of administration as well as finance. The district boards should administer and pay for only such services the benefits of which cannot properly be localised but embrace the district as a whole and as such cannot be looked after by isolated small bodies with limited resources. The main duty of the District Boards should be to exercise powers of supervision, direction and control over the operations of the union boards so as to maintain a uniform standard of efficiency throughout the district. The district boards should take sources of revenue of an all-district character and leave a wide field of taxation to be tapped by the union boards so that they may live of their own and be self-governing bodies in the true sense of the term. But even so their resources would be quite limited as the area of their operation would be small. Their revenue would require to be supplemented by contributions from the district board. These contributions should be given in the shape of block grants for a number of years in aid of particular services such as education, village communications, etc., rather than yearly grants. Certain conditions should be attached to the grants with a view to securing efficient administration and encouraging the spirit of self-help among the boards. The incidence of the grants will ultimately fall on the provincial government as the district boards by themselves cannot have means enough and to spare. In a way it may be said that

all deficiencies in the resources of all local bodies urban and rural will have to be made good by the provincial government. This should be so not because the provincial government is in the habitual enjoyment of a surplus or its financial position always sound but because its fiscal capacity is greater and its jurisdiction wider.

We have briefly reviewed the financial relations between the provincial government and the local bodies and also as among the various local bodies themselves. We shall now try to explore other ways of improving the financial position of the local bodies independently of their relation with the local government or higher local authorities. This can be done by either of the three ways:— (a) retrenchment of the services discharged by them, (b) expansion of resources (c) contracting debts. Of these three ways, the second method is obviously and undoubtedly the best and preferable to the other two. The third cannot be looked upon as a mode of improving the financial position unless we mean by it ‘enjoying temporarily greater spending power.’ Loans may temporarily improve the financial position just to get over a crisis but for long periods it has effects to the contrary. The first method should be resorted to only as an alternative and as a bad alternative for that, to the second one. So we should fix our attention on the second alternative and see how far it is practicable to add to the resources of the different local bodies—urban and rural. Now in this connection we want to lay down certain general principles that should be followed in every case. They are as follows:—

- (a) Taxation should be resorted to only when other modes of obtaining revenue such as fees, prices, fines and penalties prove insufficient.
- (b) Taxation should ordinarily take the form of direct levy, indirect taxes to be imposed only when direct taxes prove inadequate, because direct taxes have fiscal as well as educative value.

- (c) If taxation is resorted to, the principles on which taxes are to be levied should be ability and benefit.
- (d) Recurring expenditure should always be met out of the ordinary revenues.
- (e) Each local body should try to be self-sufficient as far as practicable.

Bearing these basic principles in mind let us see how far the revenue systems of the municipalities, district boards and union boards admit of improvement. The incidence of local taxation in Bengal, both in municipalities and district boards—in the former about Rs. 3 per capita and in the latter about 3 annas is exceptionally low compared with corresponding figures in other countries even when allowance is made for the poverty of the average citizen. In the circumstances, one cannot feel disposed to believe that the resources of the urban and rural bodies do not admit of expansion. Let us begin with municipalities. The field of taxation for municipalities is fairly wide. But the mainstay of municipal finance in Bengal is the tax on houses and lands, not only yielding the biggest percentage of the total income of municipalities, but imposed in almost all the municipalities in the province. The next in importance is the conservancy tax. For facility of comparison of the different sources of municipal income we may append below a statement showing the proportions under various heads of municipal income in the year 1912-13, from the Government of India Resolution Nos. 55—77, dated the 28th April, 1915. As there has not been any material change in the tax system of Bengal municipalities we may assume the proportions as giving a fairly correct estimate of the relative importance of the different sources of revenue with a fair degree of accuracy.

INCOME.

Percentage of total income from municipal rates and taxes derived from							Percentage of total income excluding loans and advances derived from				
Tax on houses and lands	Tax on animals and vehicles.	Tax on professions and trades.	Tolls.	Water-rate.	Conservancy tax.	Other taxes.	Taxation.	Under special acts.	Municipal property.	Grants from Government and other sources.	Misc.
37.2	5.5	1.8	2.1	13.9	25.1	14.4	75.8	2.1	8.4	11.5	2.2

From an analysis of the above statements it would appear that taxation in some form or other contributes about three-fourths of the total revenue of the municipalities, other sources being responsible for one-fourth only. The tax system has been made quite wide and comprehensive designed to bring within its fold all classes of population in municipal areas, although not affecting all classes equally. There is no provision for indirect taxation. The municipalities are mostly financially independent of higher authorities, although the provincial government sometimes makes contributions to the poorer municipalities and to others for special purposes such as education, water-works, etc. These are good features of the financial system of municipalities. Let us look at the other side.

First of all, although by the act municipalities may levy either or both of (a) a tax on persons occupying holdings according to their circumstances and property or (b) a rate on the annual value of holdings situated within the municipality, they generally employ one or the other. The result is that where the latter is in vogue as is usually the case, a large section of the population

escapes scot-free, I mean for instance, the working population in mill municipalities and other manufacturing centres. But the tax on persons by itself is hardly satisfactory either from the fiscal or the administrative point of view. A satisfactory solution of the problem would consist in giving effect to both the taxes at the same time providing for their levy in different wards according to their suitability to the one or the other. The tax on land and holdings resembles to some extent the general property tax in U.S.A., and we quite agree with Dr. W. B. Munro when he criticises the levy of a flat-rate both on the lands and buildings. We suggest that the land and buildings should be separately assessed and a higher rate should be fixed on land than on buildings, because the rate on buildings is likely to be shifted on to the occupiers. It would also stimulate building on vacant lands and rapid development of municipal areas. When a building remains unoccupied for a certain period remission is to be granted only in respect of the rate on building and not on the holding as a whole as is now done.

Secondly there is much scope for the development of the tax on professions and callings. At present it is not utilised in all municipalities, nor is there a satisfactory system of assessment of the professional classes. With the comparatively small and thickly populated area of their operation there is no reason why the professional classes should not be properly assessed. Professional income should form an important source of municipal revenue due to the predominance of the professional middle class in the composition of the population in our municipalities. A graduated rate on progressive principle should be employed. Very small incomes should be altogether exempted and exemptions should also be made from other considerations as in the case of income-tax. Incomes above two thousand rupees may be taxed along with the state income-tax by the income-tax authorities who may hand over the proceeds to the respective municipalities thus making a saving in the cost of collection.

Then there is another class of income which is fast coming into prominence in consequence of the rapid industrialisation of the province which escapes rather lightly under the existing tax system: We mean industrial incomes. At present the manufacturing establishments are assessed to the rate on holdings and in addition, to the water-rate, lighting-rate and latrine fees, etc., if there is provision for these services on the basis of annual value of holdings. These ought to be made to contribute their proper share to the municipal revenue. In this connection we may take a leaf out of the Prussian system of trade-tax. We may describe the system in the words of Mr. Grice "The state scheme groups all traders in four classes, according to (a) estimated profits, and (b) capital employed, and the tax levied varies from $\frac{1}{4}$ to 1 per cent of the net yield. Though works of public utility are exempted, yet industrial or commercial enterprises indulged in by the state or any local body, and earning revenue, must pay accordingly. If any trade is carried on in more than one commune the tax is divided between them." Different rates should be levied in respect of the different classes of trading and manufacturing establishments. But there ought to be a co-ordination among the municipalities in the province so as to maintain approximately a uniform rate in respect of different classes, otherwise there is the risk of the tax defeating its own purpose as a result of a rate war among the neighbouring municipalities to attract concerns by imposing lower rates.

In the next place, we think there are two other sources of municipal revenue which have not been properly tapped, we mean, amusements and advertisements. Their scope is, of course, quite limited both from the point of view of their proceeds as well as the areas where they may be levied. It is only in the more populous municipalities that they are worth trying and the rate charged should be quite moderate so as not to discourage the things in any way. Advertisements may be taxed by providing municipal bill-boards at important centres of the city on which

alone bills and placards will be allowed and charging small fees for their use as is done in some American cities.

Then again municipalities may bring some additional grist to their mill by the levy of license fees and permits from the vendors of drugs and intoxicants, pedlars, auctioneers, touring theatres and cinemas as well as from private markets and fairs. Their main object should of course be regulation and control with a view to protecting the interests of the public but incidentally they may be made to contribute not an inconsiderable amount to the municipal funds after paying for the cost of collection.

Finally schemes of local improvements such as broadening streets, opening up new streets, parks and recreation grounds, which cannot be financed out of ordinary revenues may be financed partially at least by the levy of a special assessment or betterment fee on the unearned increment of the real estates benefited by such works. Special assessments have been extensively employed in American cities.

We may now pass on to the rural boards. Let us start, as in the case of municipalities, with a statement showing the proportions under various heads of income of the Bengal District Boards in the year 1912-13, quoted from the Government of India Resolution quoted above:—

INCOME.

Percentage of total income excluding loans and advances derived from contributions.

Rates.	Cattle-pound receipts.	Educational receipts.	Medical receipts.	Misc. receipts.	Recpts. from civil works.	Recpts. from provincial & local.	Recpts. from other boards.	Recpts. from other items.
46.2	5.7	0.9	0.1	0.4	7.4	34.3	2.6	2.4

The mainstay of district board finance as would appear from the above table is rates, i.e., a cess levied on agricultural land collected along with land revenue usually not exceeding $6\frac{1}{4}$ per cent on the annual rental value of lands. Now this resembles very much the situation in England where the mainstay of local finance is the local rates which are in effect a single tax levied on occupiers and assessed on the basis of annual rental value. It is as such exposed to all the criticisms that have been levelled against the English local rates as violating some of the principal canons of taxation. It bears only on one section of the population, viz., the landed proprietors and in respect of agricultural lands only and leaves all other sections of rural population untouched. The first thing necessary to improve district board finance is to broaden the basis of taxation, to make the tax-system wider so as to bring within its fold all possible sources of revenue and different classes of population. But in doing this we must not trench on the field of taxation for the union boards; because if local self-government in this country is to become a reality union boards which are to serve as the very foundation of the edifice must be made financially strong. So in broadening the basis of district board finance we must take care to choose such sources of revenue as could not properly be tapped by the union boards. Keeping aside the question of devising new sources of revenue for the present we may say that the possibilities of development of its existing resources have not been thoroughly explored. The rate of the road cess is annually fixed by the district board but subject to maximum of one anna in the rupee. Now under the existing system of land tenure in Bengal when the landholder's contribution to the state is fixed once for all but the landlord is free to augment his dues by the tenure-holders or ryots with a rise in the value of lands the landlord very often enjoys a large amount of unearned income. In all fairness the district boards ought to have a share of it inasmuch as it is the lands that benefit most from the operations of the

district boards which are mainly engaged in facilitating communications both within the district as well as with other districts and thus adding to the rental value of lands. In our opinion the present rate may be enhanced to a considerable extent without adversely affecting the ryots because under the existing system of sub-infeudation the tenure-holders already extract what they possibly can from the cultivators to reimburse themselves for their dues by the next higher middle-man. So the incidence must rest on the proprietors themselves who may easily meet it from the surplus income they enjoy after paying land revenue to the Government. The argument for enhancement of the rate gains added weight from the fact that agricultural incomes are not assessed to the income-tax. We may also suggest the levy of a special assessment on lands immediately benefited by the opening up of a new road or broadening it or any other work of public utility calculated to raise the value of lands in the neighbourhood.

Although the landed classes are principally benefited by the activities of the district boards that is no reason why the tax burdens should be imposed on their shoulders alone. Higher middle classes and the professional classes enjoying a decent income should be brought within the ambit of the district boards, the lower middle classes small traders and the cultivating ryots being left to the union boards. This can be effected by introducing a state addition to the income-tax on the lines of Prussia. A very moderate rate on incomes assessable to the state incomes varying progressively along with the other rates will prove a fertile source of revenue and at the same time the most convenient and economical. It may be collected by the income-tax authorities along with the other rate thus making a great saving in collection. The receipts from tolls and public ferries at present under the control of the District Boards should be handed over to the union boards. They probably belong to the latter and moreover with the changes suggested above the financial position of the boards will be sufficiently improved to enable them to

forego such small receipts. In the case of the poorer districts which cannot make both ends meet even with these charges the government should offer subventions in the shape of percentages of expenditure on such services as education, public health, etc. The obligations of the district boards may also be reduced to a considerable extent on the lines suggested by the Decentralisation Commission by relieving them of some of their functions such as veterinary work, famine and plague relief, vaccination, etc., and also freeing them from contributions to Government in respect of any services of which the latter undertakes the management. They should not be called upon to contribute such normal items of provincial administration as the cost of statistical or supervising establishments or be liable for the upkeep of travellers' rest-houses which are mainly occupied by Government servants. They should not be subject to any charge for the services of Government officers from whom they receive advice or other outside assistance."

With regard to union boards we have not many suggestions to offer. The union rate assessed according to circumstances and property of persons within the union if used prudently and judiciously will prove a very good source of revenue touching all classes within the village community. It will give an elasticity to the tax system because the rate can be easily adjusted to the requirements of the community without causing much vexation to the people, reaping as they do immediately the benefits of their contributions. Moreover as the area of their operation is very small the assessors are expected to have a thorough and intimate knowledge of the circumstances of each inhabitants and assessments may be made according to the twin principles of ability and benefit. But in place of a flat rate we suggest a variable rate within certain limits prescribed by the District Executive, the rate varying not only according to the amount of property assessed but also the nature of the source of profits; for instance, land and buildings should be assessed at different rates, village

usurers should be taxed at a higher rate than say, small traders, artisans and cultivators. Of course there is difficulty as regards administration but in view of their limited jurisdiction, and local personal knowledge as regards all inhabitants it is not expected to be very great. There is also the danger of the authority being abused as an engine of oppression out of personal malice or spite by those in power but that can be guarded against by the vigilance of the district executive officer who has powers of revising assessments.

A fruitful source of revenue that may be tapped by the union boards is litigation. A fairly high fee ought to be levied on cases either in the union benches or in the higher civil or criminal courts within the district as much to add to the revenue as to discharge the habit of constant recourse to litigation.

Markets and fairs also constitute another good source of revenue for union boards. Lastly the union boards should institute license fees on the sale of drugs and intoxicants, pedlars, auctioneers, touring theatres and bioscopes as suggested in the case of municipalities. We are not in favour of improving the financial position of the union boards by relieving them of any of their existing functions because that would take away from their value as the training ground for the people in self-government.

We have so far considered how the resources of the local bodies can be increased either by tapping new sources of revenue or developing the old ones or retrenchment of their obligations. But the problem of sound finance is not simply one of ways and means, it includes as well the problem of proper assessment and collection, good budget-making and accounting, control over expenditure through inspection and audit. It is not possible to discuss, in a short paper like this, all these topics in details in relation to all the different local bodies, so we shall briefly discuss some general principles which may be applied with suitable modifications to the different local bodies. The problem of assess-

ment involves the right choice of assessors as well as a good basis of assessment. However good a tax may be, its success or failure very much depends on correct assessment. Impartiality, independence of local opinion, shrewdness as well as proper training—these are the qualities required in assessors. As such it is desirable that Government should provide for the recruitment of assessors by competitive examinations. They should be in the employ of the Government and transferred from place to place so that they may not become involved in local politics. Their pay and pensions may be charged on the funds of the local bodies which need not grudge the cost for the services they render. Next comes the question of collection. If one goes through the Government resolutions reviewing the work of municipalities and district boards one is struck by the persistent complaint year after year against the arrears in collection of the different local bodies. This betrays a lack of discipline among the employees, and also laxity in the enforcement of the punitive provisions of the act against defaulters due to sensitiveness to local opinion. While remissions and exemptions may be made in the case of those who are really unable to pay, punctual payment should be enforced in the case of the habitual shirkers. Remissness in the tax collectors ought to be penalised. Good results may also be expected from offering an inducement to punctual collection in the shape of a small bonus. The expense on this head, in our opinion, would more than repay itself.

In the next place, the importance of a sound budget procedure cannot be overemphasised in the proper administration of local finance. A city or village cannot expect to get the best out of its resources unless it proceeds on a carefully prepared plan of financial operations distributing its total income on the various heads of expenditure on the principle of equimarginal utility. Although the municipal council consisting of the representatives of the rate-payers should have the ultimate authority in approving the budget and making appropriations for different purposes the

initiative in the matter of its compilation must, of necessity, rest with the executive. Provision may be made for proper collaboration of the executive and the council at this stage through an Estimates Committee which may on behalf of the rate-payers make a preliminary scrutiny of the estimates before they are presented before the council as a whole. Of course the necessity arises only in big municipalities where the council is too large for proper discussion of all the proposals in detail in the plenary sitting. The estimates should be properly classified and itemised so as to afford the representatives of the rate-payers opportunity for clearly understanding the implications of the proposals and comparing the cost of different services as well as rise or fall of expenditure under particular heads in contrast with the figures of the previous years. Exact appropriations should be made under different heads and items rather than placing lump-sums at the disposal of the executive for meeting the expenses on a number of heads. Discretion of the executive in the matter of expenditure should be fettered as far as possible to avoid reckless expenditure and waste. Provision should be made to ensure rigid control over disbursements, to see that sums appropriated for one purpose by the municipal council are not diverted to other purposes and that the orders for payment emanate from the proper authority. Here arises the efficiency of a sound method of accounting, inspection and audit. The system of accounting is the procedure for putting all the transactions of the city on record and coordinating the data on these records so that they may be used intelligently. Rules in this behalf should be framed by the provincial government so that the accounting system may be uniform in all local bodies throughout the province. Uniform system of accounting would not only facilitate the work of audit but also afford opportunities for a comparative study of the financial position of different local bodies of the province. Like the assessors accountants should be recruited by competitive examinations. If accounts are kept properly by trained accountants the frequent embezzlements in municipalities

and district boards of which we hear so much now-a-days would be a thing of the past. The function of audit of the accounts of local bodies should continue to be carried on by the provincial government, as much to secure a thorough and independent scrutiny of the management of the finances as to ensure some amount of central control over the local bodies so necessary in the interest of the rate-payers.

We shall now conclude our discourse with a few observations on local indebtedness. The problem of local indebtedness will assume greater and greater importance with the extension of activities of local bodies. As Mr. J. W. Grice has observed with reference to cities of the West "Local debts have far outstripped local taxes, they run side by side almost with the great increase in expenditure and they are almost everywhere growing steadily heavier per head of population." This is not literally applicable to our country as yet, but beyond doubt with the development of the country on western lines there is a tendency in that direction. Mr. Grice has attributed the growing indebtedness of local bodies in the west to the expensive character of improvements, vast accumulations of people seeking investment, democratisation of the local institutions and the tendency of popularly elected local bodies to avoid the odium of increased taxation and to resort to loans as the easier method of balancing the budget. These forces are also at work in this country and as they come into prominence indebtedness would become a normal feature of the local bodies. We shall consider this question only in relation to the district boards and municipalities, for union boards with their limited resources should try to keep within their means as far as practicable. They would not have to finance very costly schemes of local improvement, in case they have to go beyond their means in undertaking any such project they may raise local contributions or in the last resort take a short period loan from the district board or the provincial government. As regards district boards and municipalities we shall discuss only some of the general principles

that should guide them in their loan operations. The first question that arises is whether the local bodies should finance works of a permanent or quasi-permanent character out of ordinary revenues or by loans? Now it is neither possible nor desirable to provide all the amenities of modern civic life which require initial outlay of vast sums, from the ordinary revenues of the local bodies. As has been observed by a Parliamentary Select Committee appointed to consider "the Repayment of loans" in 1902 "it is neither wise nor just to place upon the shoulders of present rate-payers too large a portion of the burdens of necessary or useful works from which succeeding generations will derive benefit." But State as the guardian of the interest of posterity should see that the incidence of the loans is equitably distributed between the present and successive generations according to the benefits accruing to each from the improvements effected by means of loans. The pendency of the loans is to vary according to permanence of the works financed. Now loans raised by local bodies may be of three types—(1) Loans directly raised in the open market, (2) loans advanced by credit institutions with the sanction of the state and for the purposes of which the state grants special facilities, (3) loans advanced by the state itself.

Up to now loans of the local bodies in this country have been of the last type, but with the growth of the habit of investment of the people and development of the banking system we see no reason why the local bodies should not be encouraged to raise loans in the open market either independently or through some approved bank say the Imperial Bank or the projected State Bank with the sanction of the Government. In whatever way do the local bodies incur loans their action must be subject to central regulation and final sanction of the provincial government. The Government must check rash resort to borrowing in the interests of financial stability of these bodies and of successive generations of tax-payers. Only when a costly project cannot be met out of the ordinary revenues that borrowing should be allowed. Then

the purpose of the loan must be proved to be of real and permanent benefit to the people of the locality. Loans should not be allowed for balancing a budget in a normal year. Before sanctioning a loan of any type the local self-government department must be satisfied on these points after a thorough local enquiry and should prescribe conditions as to repayment, interest, sinking fund, etc., under which the loan in question should be raised. In laying down these conditions the Government should have in view the solvency of the local bodies the interests of the investors, and also of the present and future generations of rate-payers. Loans should not be allowed to run for very long periods.

We have tried to discuss some of the most important problems of local finance, but we have not been able to do full justice to them in the interests of brevity. We have raised many points which we have left unanswered, because we have not sufficient data at our disposal. The subject of local finance as an important and indispensable adjunct to local self-government requires systematic and scientific study if we are to solve satisfactorily its problems which will engage our more serious attention as India progresses on the path of responsible government. If the edifice of self-government is to be strong and durable we must build on solid foundations in the shape of the local bodies. In concluding our discourse we suggest the establishment of municipal research bureaus in different provinces to carry on systematic research on problems of local self-government and finance. The conclusions that they arise at on the basis of facts and statistics collected in different provinces, by proper selection, classification and comparison of the data may be experimented upon in specific areas with great profit as is being done in America. It is only by this scientific method of attacking such problems that we can hope to solve them satisfactorily.

INDICES OF PRODUCTIVITY IN RELATION TO THE PROBLEM OF POPULATION

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Agricultural productivity can be determined statistically with a fair degree of accuracy and for the practical purpose of making comparisons if we take into account both yields per acre of different crops and the areas under these crops. A method has been devised to find out index numbers of agricultural productivity on this basis and such index numbers have been utilised in comparing the relative productivity of different regions in the same way as index numbers are applied to price comparisons. This method, which was adopted in the United States Year Book of Agriculture for 1919, may be explained as follows:—

“Six crops—wheat, oats, rye, barley, maize and potatoes—comprise the bulk of crop production in most countries of the world. Of the total area in cultivated crops before the war, excluding hay and grass crops, they comprised in Germany approximately 82 per cent; in France, 75 per cent; United Kingdom, 72 per cent; Denmark, 79 per cent; Holland, 70 per cent; Belgium, 75 per cent. Although these figures are only approximations, they are sufficiently accurate to indicate that index numbers of the relative yields per acre of these six products combined would fairly represent the relative per acre productivity of the various countries. For each country the average yield per acre for a series of years was obtained, and these yields were reduced to their percentage of the average yields of all countries. The percentages of each country were combined, weighted in proportion to the

relative acreage of the various crops in the country to obtain the index number of production.”¹ Indices of productivity for the different countries of the world were calculated according to this method (100 being the weighted average of all countries) and it is interesting to find India with an index of 84 in the comparative table.

Prof. D. H. Macgregor has applied this method in making international comparisons of agricultural productivity in his report embodied in the Final Report of the Agricultural Tribunal of Investigation. The indices given in the report are as follows:—Belgium, 164; Germany, 130; Denmark, 136; Britain, 131; France, 92; Holland, 133; (the standard being 100, the weighted average). The indices have been carried back to the beginning of the period for which there are statistical returns of yields, and the variations of productivity have been shown in the case of each country over a period of 30 years so that some significant conclusions have been arrived at on the basis of international comparisons.

Prof. Madhava of Mysore has also applied this method in the case of certain districts of Mysore in the course of an article on official statistics published in the first issue of the Half-yearly Mysore University Journal. He has shown how the indices enable us to determine the relative ranking of the several districts in order of agricultural productivity, and how the accuracy of the results can be confirmed by a study of actual agricultural conditions. He has also shown by calculating indices for a number of successive years that these indices are remarkably steady because the “co-efficients of variability are all under 15 per cent which is rather a rare phenomenon in economic (as also in biostatistical) data.”

The same method has been adopted here to calculate the indices of productivity for forty districts of the United Provinces of Agra and Oudh situated in the upper Gangetic plain. It is

¹ United States Year Book of Agriculture, 1919, p. 735.

obvious that in applying this method we have to take into account certain representative crops which are grown invariably in all the districts. There are no doubt local variations in the matter of rotation of crops, systems of farming and methods of cultivation; but so far as the selection of crops is concerned, we have already seen that certain crops are invariably grown in every district. But out of those crops which are common to all the districts we have chosen the principal crops to the exclusion of minor ones. The reason is that the crops selected constitute more than 75 per cent of the total gross cultivated area,² so that comparisons on the basis of more than 75 per cent of the gross-cropped area will not be unreliable. Moreover, such returns of yields per acre as we have taken into account are not available for all the crops which are common to all the districts.

Now firstly, we take the area under any crop, say *a*, in a particular district. This area is expressed as a proportion of the cropped area under the representative crops taken into account.

Secondly, we obtain the index number of yield. This is found out by dividing the yield per acre of the crop *a* in that district by the corresponding yield per acre for the whole province as the standard. Now the district yield may be expressed as a percentage and this percentage may be regarded as the index number of yield.

Thirdly, the results are multiplied. In multiplying the proportion of the area under *a* and the corresponding index number of yield we take into account

- (1) the relative importance of the crop *a* in that district (as indicated by the proportion of the cropped area which is under *a*) and
- (2) the yield of the crop *a* in comparison with the provincial standard.

² Gross cultivated area = Net cultivated area + double-cropped-area.

The product which we get is, therefore, an index of the contribution of the crop *a* to the productivity of the district we are considering.³

Fourthly, we get similar products by taking into account other representative crops and the aggregate sum of these products constitutes the combined index number of production.

The whole process may be expressed in the form of the following formula:—

$$\sum \frac{e_a}{\Sigma e} \times \frac{y_a}{Y_a} \times 100$$

=Index of productivity where,

e—Extent of the cultivated area under any crop.

y—District yield per acre.

Y—Provincial yield per acre.

a—Crop *a*.

Let us now consider the significance of the indices of productivity which may be computed according to this method. As already said, such indices have been employed by Prof. Macgregor for the purpose of making international comparisons of agricultural productivity. In the first place, these indices are designed to give us an idea of the relative agricultural progress of the different countries of Europe when indices for different countries for a large number of years are placed side by side for the purpose of comparison. In the second place, the indices reveal the relative agricultural importance of different countries at a given point of time. But it must be remembered that the total productivity in the agricultural countries of the West includes not only the productivity in respect of arable farming but also the productivity in respect of stock farming. These indices,

³ It will be remembered that we made use of these products in examining the problem of agricultural productivity from the point of view of the geographical distribution of crops.

⁴ Cf. A note on the method of calculating indices of agricultural productivity.

therefore, do not reveal the relative importance of stock-raising in the rural economy of the different countries of Europe and hence they do not indicate completely the agricultural situation of these countries. Of course, Prof. Macgregor has calculated the productivity of these countries in respect of live-stock by finding out the live-stock raised per 100 cultivated acres. But even then, as he has admitted, the productivity in respect of livestock cannot be regarded as additional to the productivity in respect of arable farming for the simple reason that "A large part of the crops is fed to stock." On the other hand there is also the fact that "The maintenance of stock on the land itself influences crop yields" so that a larger amount of stock kept on the land will certainly have the effect of increasing the crop yields and consequently the agricultural productivity in respect of arable farming. Thus, on the whole, it is rather difficult to infer, from the indices of productivity, anything definite about the total agricultural productivity of the different countries and hence a comparison of these indices does not go very far in giving us a definite idea about the relative agricultural situation in these countries. Now this difficulty obviously does not arise in the case of the densely populated districts of the Gangetic plain where stock-farming is unknown and agriculture as an industry is confined only to arable farming. As already explained in the last chapter, the population in this region subsists mainly on rice and the deficiency of the rice diet in Protein and Nitrogen is made up by the consumption of cereals and vegetables rich in these substances or else by the consumption of fish so that there is no necessity of a mixed diet of cereals and meat as in the Western countries and no necessity of a highly developed stock-farming. Moreover, as we have seen, the pressure of population upon land in this region has become so intense that the cultivated area has sometimes made encroachments even upon pasture lands so that raising of live-stock even for purely agricultural purposes has become increasingly difficult.

There is another important reason why the indices of agricul-

tural productivity are particularly useful in the case of a predominantly agricultural region like the upper Gangetic plain. Such indices not only definitely indicate the *whole* agricultural position of different districts relatively to one another but they also reveal their relative *economic strength* based as it is on a single industry, viz., agriculture. Hence, so far as the density of population depends upon the extent of economic resources in a particular place and also upon the extent to which these resources have been utilised in the best possible manner, these indices throw a flood of light on the problem of the density of population. As Prof. Bowley points out, in the case of industrial countries density figures convey little or no meaning that has any practical bearing. It is no use computing the number of people who earn a living per acre of a town. When we compare such density figures and speak of over-population we think in terms of over-crowding or mal-distribution of population; we do not think of over-population from the point of view of adjustment of population to the economic resources and possibilities of a particular place. "From this point of view," Prof. Bowley says, "Density is of use mainly, if not solely, for considering the number of people supported by consumption or sale of pastoral or agricultural products."⁵ But even then density figures will not be sufficiently significant if we do not concentrate our attention upon a particular region in which the soil and climate are fairly uniform. Otherwise we shall be mixing up, as Prof. Bowley remarks, "A measurement of the variability of the soil with that of the adequacy of its cultivation."⁶ If, however, we take a homogeneous area, we may usefully compare the density of population dependent on it with either that of another area of the *same general nature* or with that of another homogeneous area of a different nature. Now, the indices of productivity for the forty districts lying in the upper Gangetic plain have been calculated on the basis 100 which represents the regional

⁵ Bowley, *Measurement of Social Phenomena*.

⁶ *Ibid.*, Chap. I.

standard. All these districts constitute a region, in which, in spite of local variations, the soil and the climate, as we have already seen, are of the same general nature and the choice of crops and the systems of farming exhibit the same fundamental characteristics. Hence, a comparison of the productivity of the different districts on the basis of a regional standard is highly significant not only because it indicates their relative position in the scale of productivity but also because it enables us to compare the densities of these districts on the basis of agricultural productivity.

This study of the problem of density in the light of agricultural productivity has been specially fruitful in the case of a region like the upper Gangetic plain and the reasons why this is so are mentioned below:—

- (a) The upper portion of the Gangetic plain constitutes an agricultural region where we find some of the highest densities in the world. The symptoms of a high pressure of population upon land are present in a most striking manner. We find a very high percentage of gross-cropped area; the net cultivated area is, on the average, 72.5 per cent of the total cultivated area. The double-cropped area is also very extensive and varies from about 5 per cent of the cultivable area in the dry regions of the Central India Plateau to about 27 per cent in the district of Oudh. Moreover, the extreme pressure upon land is revealed by the very small extent of the area recorded as Recent Fallow which varies from about 2 per cent to 3 per cent of the net cultivated area.
- (b) This region consists of as many as 40 districts showing often very wide variations in density. This has enabled us to get sufficiently numerous points on the curve of productivity otherwise the alternative would have been to take one particular district and mark the variations in indices year by year (as Prof.

Madhava has done) for a large number of years and even then it would be difficult to take into account possible changes in y_a and Y_a , because accurate figures for y_a and Y_a are available only for the quinquennium ending 1921, so that if we calculate indices on the basis of figures of average yields for years preceding this quinquennium our results will be unreliable. Moreover so far as density figures are concerned we would have had to find out the intercensal annual variations in population.

- (c) The figures representing y_a and Y_a given in the Quinquennial Report on the Average Yield of Principal Crops in India, published by the Department of Commercial Intelligence, are more reliable in the case of the districts of the United Provinces of Agra and Oudh. These statistics of yield are made the basis of land-revenue assessments so that special care seems to have been taken to get as accurate figures as possible. The returns of average yields are obtained by crop-cutting experiments. On an examination of the returns for the quinquennium ending 1911-12, it was recognised that the results of the experiments as conducted by the district revenue staff were generally unreliable. A change in the system was considered desirable and in 1915, the Government of India with a view to ensure accuracy issued instructions to employ as far as possible the expert officers of the Provincial Agricultural Department for carrying out experiments on a well-ordered plan in each agricultural tract and for the investigation of average crop outturns in the various provinces.⁷

⁷ Quinquennial Report on the Average Yield of Principal Crops in India, 1921. Memorandum of the Director of Statistics.

The new system was introduced in the quinquennium ending 1916-17 in some of the provinces mainly as an experimental measure. "It appears from the present reports that during the quinquennium under review the new system was not fully carried into effect in most of the provinces." But so far as the United Provinces of Agra and Oudh are concerned the memorandum of the Director of Statistics does not include them amongst the provinces where the new system was not fully carried into effect. As a matter of fact he says that, "In the quinquennium under review experiments in the United Provinces were made by officers of the Agricultural Departments and some by settlement officers in addition to those conducted by district officers."

- (d) The density figures have been taken from the Census Report of 1921. Moreover the Season 1921-22, was a normal season so far as cropped areas and outturns are concerned so that the cultivated areas taken are normal cultivated areas under the representative crops selected. Then again, as pointed out above, the figures representing y_u and Y_u are also taken from the Quinquennial Report on Average Yields for the period ending, 1921. Hence it will be seen that all the figures taken as data relate to the same year, viz., 1921; and what is more important is that the year 1921-22, has turned out to be a normal agricultural year by a chance coincidence so that the value of the results obtained has been considerably enhanced. For example, we can measure the variations in productivity with reference to the normal and thus we can have an idea of the variations in the economic conditions of the different districts in abnormal years.

It is a remarkable fact that the method by which we have

calculated the indices of agricultural productivity fully takes into account the influences of agricultural water-supply, intensive cultivation and the choice of valuable or heavy-yielding crops upon agricultural productivity. The influence of irrigation on productivity has been taken into account by reckoning separately the irrigated and the unirrigated areas under the different representative crops and also the irrigated and the unirrigated yields per acre in every case. A high rate of yield obtained over a larger proportion of the irrigated area is bound to tell strongly in the total index of productivity. Secondly, the influence of intensive cultivation is taken into account when we compare the district yield with the provincial yield. Thirdly, the index number of yield multiplied by the proportion of the area under any crop to the total area under all the representative crops gives an index of the contribution of this crop to the productivity of a particular district. Hence this index takes into account the influence of choice of crops upon agricultural productivity and as the index of productivity is nothing but the sum of such indices for all the representative crops our method takes into account the influence of choice of crops upon the agricultural productivity of a district. But it should be noted that our method does not take into account the extension of cultivation in a particular district and the bearing of this limitation upon the problem which we are considering will be examined later on.

Let us now indicate the source and nature of the data which are the basis of our calculations. Firstly, the representative crops selected are Rice, Wheat, Barley, Juar, Bajra, Maize, Gram, Sugarcane and Cotton. The area under these crops, as already pointed out, constitutes more than 75 per cent of the gross-cropped area. The figures for the areas under these crops have been taken from the Crop and Season Report for 1921-22. Secondly, the figures for district yields and provincial yields have been taken, as already said, from the Quinquennial Report on Average Yields for the period ending 1921. In this respect a departure has been made from Prof. Madhava's method of obtaining figures of

average yields. In finding out y_a for example, Prof. Madhava has divided the total outturn of 'a' in any district by the area under 'a' in that district. Similarly in finding out Y_a he has divided the total outturn of the entire province by the total area under 'a' in that province. Now, if we take the figures of average yields given in the Quinquennial Report separate calculations of yields are avoided and, what is more important, the figures are more reliable as indications of the productivity of different tracts, based as they are on crop-cutting experiments. Thirdly, the density figures represent, in all cases, densities of rural portions only; otherwise density figures cannot be interpreted in the light of agricultural productivity.

Let us now turn to the actual results which we have obtained. Our problem, as pointed out at the outset, is to discover the relation between the variations in indices of productivity and the variations in the density of population and to find out whether the rate of increase or decrease in productivity is commensurable with the rate of increase or decrease in the density of population. If we refer to the general-trend curve of productivity in the graph given on page 250 we find that the general trends of density and productivity show a close correspondence. But we observe certain discrepancies which are very much pronounced in the case of districts where the density is in the neighbourhood of between 416.8 and 499.3. Can these discrepancies be explained in the light of probable conditions under which a discrepancy would arise? Are there any theoretical limitations of the method and if so can these discrepancies be explained on the basis of these limitations? If it is not the case, are the discrepancies to be explained on other grounds?

Theoretically, we may conceive of conditions under which there will be a discrepancy in the sense that there will be an inverse relation between the index of productivity and density. Suppose in a particular district A the unculturable area as well as the area recorded as culturable but not cultivated is extensive. Now the extent of the net cultivated area being small the population

which can subsist on the agricultural resources will be correspondingly small under the usual conditions, i.e., we should expect a low density of population in this district. Again suppose in another district B the unculturable area as well as the area recorded as culturable but not cultivated is small. Now the extent of the net cultivated area being large the population which can be maintained under the usual conditions will be correspondingly large, i.e., we should, in this case, expect a high density of population. Now, so far as our method of calculating indices of agricultural productivity is concerned it does not take account of this variable factor, viz., the extent of the net cultivated area. Now, we might suppose that in the case of A the proportions of the areas under the different representative crops to the total cropped area under all these crops $\frac{ea}{\Sigma e}$, $\frac{eb}{\Sigma e}$, etc., are the same as the corresponding proportions in the case of B. It is also possible that the proportion of the district yield to the provincial yield $\frac{y_a}{Y_a}$, $\frac{y_b}{Y_b}$, etc., is the same in the case of A as in the case of B. Thus under the conditions assumed the index of agricultural productivity will be the same in the case of both A and B. Hence comparatively speaking, in A the density will be low although the productivity is high and in B the density will be high although the productivity is low. Moreover, it is also conceivable that in A the standard of cultivation is higher and it enjoys greater advantages in respect of soil and rainfall so that $\frac{y_a}{Y_a}$ is greater in A than in B. In this case, the discrepancy between agricultural productivity and density will be further accentuated. Our conclusion, then, is that theoretically there will be a discrepancy between agricultural productivity and density on the following assumptions:—

(a) That the net cultivated area is smaller in A than in B, and

(b) that $\frac{ea}{\Sigma e}$ and $\frac{y_a}{Y_a}$ are the same in both A and B; and this discrepancy will be greater if $\frac{y_a}{Y_a}$ is greater in the case of A than in the case of B.

Let us now examine the statistical facts relating to this

question and enquire whether the discrepancies which have actually arisen can be explained in the manner proposed above. The obvious test consists in finding out the co-existence of the conditions (a) and (b). I. other words, the discrepancies can be explained by the theoretical limitations of the method if we find that the indices of productivity will be the same although the extent of the unculturable area as well as the area which is culturable but not cultivated is different (which means that the net cultivated area is different). This involves obviously the question whether there is a discrepancy between variations in productivity and variations in the extent of the unculturable area as well as the area which is culturable but not cultivated. The graph given on page 253 is interesting in this connection and the facts revealed supply an answer to the question that we have raised. It is apparent that the general tendency is for productivity to diminish with increase in the extent of the unculturable area as well as the area which is culturable but not cultivated. Thus high productivity goes with a high density of population in districts where the extent of unculturable area as well as the area which is culturable but not cultivated is small; and low productivity goes with a low density of population in districts where the extent of unculturable area as well as the area which is culturable but not cultivated is large. This shows that there is no discrepancy, between variations in productivity and variations in the unculturable area as well as the area which is culturable but not cultivated. It is obvious that according to our method of calculating indices of productivity the crops which have a very high district yield in proportion to the provincial yield and which occupy also a large proportion of the total area under the representative crops will tell very strongly in the total index. Variations in these indices therefore can only mean variations in these factors which make the index figures higher or lower as the case may be. Hence, from the fact that productivity is high in the case of districts where the unculturable area as well as the area which is culturable but not cultivated is small

we can reasonably conclude that in these districts the district yield in relation to the provincial yield is high owing to favourable physical conditions of soil and rainfall and that such a high yield is obtained over a comparatively large area of land. This means that $\frac{y_a}{Y_a}$ cannot be the same as assumed in comparing A and B and hence the indices will be different in the case of such districts. The hypothetical nature of this assumption is indicated further by the general-trend curve representing the variations in the double-cropped area. It appears from this curve that the double-cropped area decrease with an increase and increases with a decrease in the extent of the unculturable area as well as the area which is culturable but not cultivated. It is significant that double-cropping is extensive wherever the extent of the cultivated area is very large. As already explained in Chapter II double-cropping always depends upon the favourable conditions of soil and rainfall. Hence the fact that double-cropping is more extensive in districts like B and less extensive in districts like A clearly indicates that the districts like B enjoy greater natural advantages than the districts like A and consequently the indices of productivity cannot but be higher in the case of the former and lower in the case of the latter.⁸

The substance of our discussion, then, is that the discrepancies which have arisen in the case of certain districts are not accompanied by the possible conditions under which such discrepancies might arise. Hence these discrepancies are not due to the limitations of the method by which we calculate the indices of productivity and must, therefore, be explained by other than the agricultural factors of the problem of the density of population. Moreover, it is interesting to observe another significant fact which is revealed by the general-trend curves of productivity and double-cropping. We find a trough-like depression in the curve

⁸ The possibility that $\frac{y_a}{Y_a}$ might be greater in the case of districts like A is obviously more hypothetical.

of productivity in those ranges where the indices of productivity vary from about 98 to 102. In the curve of productivity given in the graph on page 250 we find the same sort of depression in the very same ranges. Moreover, if we observe the curve of double-cropping we find that it ascends steeply in exactly the same ranges. This means, that in the case of these districts, although the extent of double-cropped area is large the index of productivity is relatively low in spite of the fact that the area which is unculturable as well as the area which is culturable but not cultivated is not relatively large. Hence it appears that the discrepancies which have arisen are real and must be explained on other grounds.

We have just discussed the nature of the general correspondence between agricultural productivity and the density of population and we have seen that, apart from certain discrepancies which must be explained by other than the agricultural factors of the problem of density, there is a pronounced tendency for the density of population to increase correspondingly with an increase in agricultural productivity. An attempt will be made to examine a little more closely the significance of the curve of productivity given on page 250.

Firstly, it is important to observe the significance of agricultural productivity represented by an index of 100. If we were to find out the indices of the contributions of the representative crops selected to the productivity of the entire province and sum up these indices the result will obviously be 100. This combined number index, viz., 100 is nothing but the weighted average for the entire province and it serves as the standard on the basis of which we can make comparisons. Now if we observe the graph on page 250 we find that the index of 100 corresponds with a density in the neighbourhood of 500. It appears also from the Census Report that the true mean density of the United Provinces, as a whole, is between 450 to 600 although the arithmetical average of density is slightly less. This correspondence between the weighted average of agricultural productivity for the entire region

and its mean density is highly significant.⁹ It shows that the index 100 really represents the average conditions of agricultural productivity in this region and, in so far as the dynamic changes in the agricultural situation and in the density of population can be studied with reference to the curve of productivity, the significance of this index can scarcely be exaggerated.

Secondly, it is important to observe the nature of the increase of productivity relatively with the increase of density and this is possible by observing the rate of increase of productivity in relation to the rate of increase of density. The graph given on page 258 is instructive in this connection and the curve given there has been traced out in the following manner. The same data which have been utilised in tracing out the curve of productivity given on page 250, have also been utilised here but in a different manner and with a different object in view. The density figures given in the graph on page 250, have been expressed as proportions of the mean density, viz., 500 and the productivity indices have been expressed as proportions of the index of average productivity for the entire region, viz., 100. The former series of ratios is represented along the X-axis and the latter series along the Y-axis.¹⁰ The curve that we get, viz., the curve A shows the nature of the increase of productivity in a very interesting manner. It will be seen in the diagram that another curve, viz., the curve B has been fitted into this curve which we have traced

⁹ It shows that the correspondence between agricultural productivity and density as demonstrated in the last chapter is highly significant and real.

¹⁰ The values of X corresponding to values of Y are :—

$$\begin{array}{l}
 \frac{280}{500}, \frac{90}{100}; \frac{305}{500}, \frac{90 \frac{3}{5}}{100}; \frac{330}{500}, \frac{91 \frac{3}{5}}{100}; \frac{355}{500}, \frac{93 \frac{1}{5}}{100}; \frac{380}{500}, \frac{95}{100} \\
 \frac{405}{500}, \frac{98}{100}; \frac{430}{500}, \frac{96}{100}; \frac{455}{500}, \frac{98 \frac{2}{5}}{100}; \frac{480}{500}, \frac{97 \frac{2}{5}}{100}; \frac{505}{500}, \frac{100 \frac{4}{5}}{100} \\
 \frac{530}{500}, \frac{101 \frac{4}{5}}{100}; \frac{555}{500}, \frac{102 \frac{3}{5}}{100}; \frac{580}{500}, \frac{103 \frac{2}{5}}{100}; \frac{605}{500}, \frac{103 \frac{2}{5}}{100} \\
 \frac{630}{500}, \frac{103 \frac{1}{5}}{100}; \frac{655}{500}, \frac{100 \frac{3}{5}}{100}
 \end{array}$$

out.¹¹ Apart from a well-marked discrepancy which is found in the middle ranges of the two curves and which is due to unknown non-agricultural factors of the problem of density as explained in the last chapter, the curve B may be taken to represent fairly the general trend of the increase of productivity. It is interesting to note that the curve B has certain well-defined peculiarities which give us a clue to a proper understanding of the nature of the increase of productivity relatively with the increase of density. These peculiarities are apparent from the shape of the curve itself. Such a curve has a steep ascent at first up to a certain point after which it has a gentle inclination upwards. This means that there is a very rapid rate of increase up to a certain point after which the rate of increase becomes slow. But it must be noted that there is another discrepancy in so far as the curve A takes a gentle slope upwards even at the initial stage and this means that productivity does not increase very fast at first, and that the rapid rate of increase, begins only after this initial stage. This discrepancy can be explained by the fact that there is an inevitable lag and until there is a minimum number of people on land agriculture would be imperfectly organised and productivity will not begin to increase as fast as it does at a later stage. But, on the whole, we may say that the curve which represents the general trend of the increase of productivity is of the nature of the curve B. Now, if we observe the diagram once more we realise at once the significance of the point which represents a productivity of 100. It is up to this point that there is, on the whole, a very rapid increase of productivity corresponding to uniform increase in density but after this point has been reached the rate of increase of productivity becomes much slower. Hence it appears that so long as the density of population is below 500 agricultural productivity increases, under the existing condition at a very rapid rate. But when the density goes on

¹¹ It is interesting to note that there is a close resemblance between the curve B and the Hysteresis curve which is employed in Physics to represent the magnetic condition or properties of a material.

increasing beyond 500 agricultural productivity has a tendency to increase at a less rapid rate.

It is interesting, in this connection, to consider the question whether the statistical analysis given above throws any light on the so-called problem of 'over-population' in the upper Gangetic plain. But it is important, at the outset, to understand what over-population or under-population really means. The only 'real' Law of Population may be stated in the words of the late Professor Cannan as follows:¹² "At any given time the amount of labour which can be exerted on a given extent of land, consistently with the attainment of the greatest productiveness of industry at that time, is definite. Assuming (what within short periods is almost exactly true) that the total amount of labour exerted on a given territory increases and diminishes as the population of that territory increases or diminishes we may word the law thus—at any given time the population which can exist on any given extent of land, consistently with the attainment of the greatest productiveness of industry possible at the time, is definite."¹³ The size of the population which ensures the maximum return may be regarded as the optimum size and we can speak of absolute over-population or absolute under-population when the population exceeds or falls short of this optimum size. But as Prof. Cannan says, "To show that both under-population and over-population are *possible* is not the same thing as showing that either of these things exists now or has ever existed The existence of over-population or under-population is not susceptible of exact demonstration."¹⁴ The reason why this is so is to

¹² The word 'real' used by Prof. Cannan himself is significant and, in fact, as Mr. Lionel Robbins points out, Prof. Cannan made a distinct contribution to economic science by extricating the problem of population from the haze of unreality in which it had been enveloped so long.

¹³ Cannan, *Elementary Political Economy* (2nd Ed.) p. 22. Quoted by Mr. Lionel Robbins in an article on the Optimum Theory of Population in *London Essays in Economics* (p. 103).

¹⁴ Cannan, *Elementary Political Economy*, p. 25. Quoted by Mr. Robbins in *London Essays in Economics* (p. 115).

be found in the fact that the point of maximum return, as Prof. Cannan explains, is being constantly shifted by the "Progress of Knowledge and other circumstances" and it is highly problematical at any time to say whether a larger or a smaller population is desirable in the case of a particular country. Absolute over-population is thus a question of knowing definitely the point of maximum return. The number of people that can exist on a given land consistently with maximum productiveness is no doubt definite. But it is not an easy matter to demonstrate that in any particular region the point of maximum return has already been passed and that a diminished number of people has become desirable.

But while it is difficult to verify the existence of *absolute* over-population (or under-population) in a particular region, it is not difficult to verify statistically the existence of *relative* over-population. This distinction between absolute and relative over-population which has been suggested by Prof. Mises implies that while a region may be regarded as absolutely over-populated "If the optimum of population beyond which an increase in the number of people signifies not an increase but a lowering of the standard of comfort has been already reached," it may be regarded as relatively over-populated when "on account of large population less favourable conditions of production are present than in other lands so that necessarily the same expenditure of capital and work brings a smaller return.¹⁵ Thus assuming a given adjustment between population and productivity we can, at a given point of time, form an idea of the extent of relative over-population or relative under-population in a particular region when this region is compared with others. Whether the given adjustment represents the optimum conditions or not is something which cannot be verified; but whether this adjustment takes place under

¹⁵ L. Mises, *Nation, Staat and Wirtschaft*. These passages which are quoted in German by Mr. Robbins (footnote on p. 132 of *London Essays in Economics*) have been translated into English.

more or less advantageous conditions in one region than in another is something which can be verified. Thus we can speak of relative over-population in a particular region when the advantages of increase of population are less there than in another region and we can speak of relative under-population when the advantages of increase are greater in one region than in another. Thus two regions may be absolutely over-populated; but still we can speak of relative under-population in the case of one and relative over-population in the case of the other. Similarly two regions may be absolutely under-populated; but still we can speak of relative under-population in the case of one and relative over-population in the case of the other.

From this point of view the curve given on page 258 has much significance. As already explained, agricultural productivity increases at a very rapid rate corresponding to uniform increases in density up to that point on the curve which represents a productivity of 100. But after that point the rate of increase becomes much slower. From this it is not an unwarrantable inference that there is relative under-population in the case of districts having a density in the neighbourhood of less than 500 because the advantages of an increase of population are greater in the case of this group of districts; and that there is relative over-population in the case of districts having a density in the neighbourhood of more than 500 because the advantages of an increase of population are smaller in the case of this group of districts. But it must be remembered that some of the districts having a density of less than 500 might be not only relatively but also absolutely over-populated. Again some of the districts having a density of more than 500 might be not only relatively but also absolutely over-populated. But the point at which absolute over-population begins or at which absolute under-population ends will depend obviously upon the position of the optimum and the determination of this point, as Prof. Cannan has pointed out, is not within the bounds of statistical demonstration.

A note on the method of calculating indices of agricultural productivity.

Suppose that $a_1, a_2, a_3, \dots, a_n$ are the n crops grown in any area. Now if we follow the notations given on page 556 the formula may be stated thus:

Index of Productivity

$$= \left(\frac{ea_1}{\Sigma e} \times \frac{ya_1}{Ya_1} \times 100 + \frac{ea_2}{\Sigma e} \times \frac{ya_2}{Ya_2} \times 100 + \dots \right) \div n$$

$$= \frac{100}{n} \times \frac{ea_1 \times \frac{ya_1}{Ya_1} + ea_2 \times \frac{ya_2}{Ya_2} + ea_3 \times \frac{ya_3}{Ya_3} + \dots + ea_n \times \frac{ya_n}{Ya_n}}{ea_1 + ea_2 + ea_3 + \dots + ea_n}$$

It will be observed that the ordinary arithmetic formula for obtaining weighted index numbers of prices is just the same as the formula given above. Thus y 's are the prices in any year, Y 's are the prices in the base year and e 's are the quantities taken into account in the particular year. The objections raised by Prof. Irving Fisher against such a formula, viz., the factor reversal test and the time reversal test cannot obviously apply in the present case.

THE IDEAL SYSTEM OF LOCAL FINANCE IN RURAL AREAS OF BRITISH INDIA—AN ANTICIPATION

BY

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The problem of the principles, on which grants should be allotted, bristles with difficulties. In England, where the system of assigned revenues, was for long in operation, it is significant, that it had to be supplemented by many fixed or *per capita* grants, given on behalf of specific services. The system of block grants, as a rule, gave way in favour of percentage grants in 1913-14. The chief defect of the percentage grant system, is that under it, the deciding voice, as to what money shall be spent, is not that of the Government or the House of Commons, but that of local authorities. "The departments are thus in great difficulties in framing estimates, for these are based not on anticipations of what the department itself will do, but of what hundreds of authorities may do. The weakness of divided responsibility is manifest throughout."

The Committee on National Expenditure, presided over by Sir Eric Geddes, pointed out that the whole question of the relationship of national and local finance needed revision, but refrained from making any specific recommendation. The Geddes Committee pointed out, that the percentage grant system led to extravagance on the part of local authorities and recommended that percentage grants be replaced by block grants. A recent writer, however, in the *Nation and Athenum* (Nov. 24th, 1928), points out that percentage grants are in force in England for Edu-

cation and Police and that the system was applied to Education after other methods of grant had been tried and found wanting. The great advantage of the percentage grant over the fixed grant, is that sympathetically administered, it affords the best instrument for Government control, without undue interference with the autonomy of local bodies. At the same time, it must be remembered, that while under a system of block grants, local bodies are once and for all released from the obligation of augmenting their tax resources, under a system of percentage grants, there is the reciprocal obligation, cast upon local authorities, to find half or two-thirds of the cost, as the case may be. In the beginning of this century in India, block grants were more or less prevalent (*vide* Richey's Grant-in-aid to Schools in India), and local authorities, were conceived of as institutions perpetually dependent on Provincial Governments. The Financial Relations Committee of Madras (1920) pointed out solemnly that it is the duty of the Government to insist, that all grants from Provincial funds, are spent to good purposes. “. . . . No grants, in our opinion, should be sanctioned, except on the clear understanding that the Government are at liberty to reduce or withdraw them, if the services for which, they are intended, are not efficiently administered.” This view does not seem to be confined to one province. In Bengal, Bihar and Orissa likewise, the opinion of the Provincial Governments seems to be that grants-in-aid are a form of control of the activities of a local body, in regard to which they no longer have internal control, under the existing dyarchic dispensation. Thus Mr. Goode (Secretary to the Government of Bengal Local Self-Government) in his evidence before the Taxation Enquiry Committee pointed out: “If the provincial grants-in-aid, are conditional and not earmarked, they may in the opinion of the Government be misapplied like other funds, within the absolute discretion of the local body. This external control of policy by means of grants-in-aid has never been objected to by local bodies and it would be most unwise, in view of the inefficiency of local administration, to surrender a power, to which no exception is

taken. The Taxation Enquiry Committee also endorsed the prevalent doctrine of grants-in-aid as a method of external control, over the activities of local bodies and have recommended that "grants should be granted in a manner, which will enable the Provincial Government to insist on efficiency." Now I submit, that the time has come when we must revise the dictum of the Financial Relations Committee of Madras. We have to view grants-in-aid, made to local bodies from a different standpoint altogether. I would even go to the extent of stating, that of late, we have an exaggerated importance to grants-in-aid from Provincial Governments, imagining, that they constituted the *sinè qua non* of success in local self-government in rural areas of British India. I think, the time has arrived, when we ought to lay stress on the reform of local taxation in rural areas and see that local bodies are provided with adequate and independent sources of revenue. At present, the existence of our local bodies is either one of idleness or financial bankruptcy. Now that Provincial contributions have been put an end to, our Provincial Governments cannot, ostrich-like, take shelter, under the Meston Award, and refuse help to local bodies. Now that in these days of rapid transport, the distinction between national and local services is tending to become obscure, there is not much reason behind the systems of percentage and discretionary grants-in-aid. I think, we have made too much of a fetish of percentage grants. Of course every one knows Mr. Sidney Webb's classical arguments, in favour of a system of percentage grants, and it is because, we have followed too closely the English system of percentage (if we can be said to have followed any scientific system of grants-in-aid) that the grants-in-aid distributed to (*vide* Note) our local bodies have not been substantial. Until such time arises, considering that taluks and districts, in one province, are unequally endowed in the matter of both material and human resources, I think our Provincial Governments should inaugurate a system of block grants. As far as the Madras Government is concerned (*vide* the Reports of the

Madras Provincial Simon Committee and the Memorandum submitted by the Madras Governor to Simon Commission), from the panchayats, up to the District Boards, it must be said to the credit of our local bodies, that they have functioned, as satisfactorily, as they could, under the restricted conditions of an inadequate Revenue.

Lord Balfour of Burleigh, in his separate report to the Royal Commission on Local Taxation in England, points out how Exchequer grants, can be so manipulated, as to make the burden of cost of a national service, on ratepayers equal in different localities. He points out how conditions vary greatly in different localities, *e.g.*, density or sparseness of population and general industrial character, and how the freedom of rates varies from one locality to another. He, therefore, advocates the system of block grants, under which grants should be distributed in such a way that most would be given to those districts which have the lowest ability and whose expenditure is necessarily high and less to those with the greatest ability and less necessity for expenditure. For preventing the dangers of block grants, he outlines a system of grants, which involves the recognition of two principles—(1) there must be a minimum scale of expenditure for every local body; (2) again there must be a certain amount of maximum revenue that can be raised by a local body. The grants then given, under his scheme, would be equal to the deficiency between minimum expenditure amount and maximum revenue amount and it must be made on condition, that the maximum revenue, is raised as soon as possible. He puts the entire case for his scheme, when he points out while there is such extreme disparity in local resources of different localities, it is hopeless to expect, and impossible to insist upon efficiency in national services, unless state subventions can be used as a means of equalisation. This is just the standpoint from which grants-in-aid to local bodies must be approached in India, so long as the system continues to exist. As already pointed out, Grants-in-aid are only second-best. The theory of Mr. Sidney Webb and his

followers (*vide* his *Grants-in-aid*, Chapter 22), "that local independence is reserved, under the method of grants-in-aid while denied under control without grants," will on careful examination be found to be untenable. His conception of local autonomy is best reproduced in his own language. "We wish to leave the local authorities, free to choose, just as a wise parent leaves his children free to choose. But there is no harm and on the contrary great gain, in taking care, that the choice is exercised, with all available knowledge; and experience shows that the choice is more likely to be made, if some financial inducement, is thrown in the balance, in favour of the course, whilst benefiting the locality itself, now and then, is likely to be of most advantage, to the community as a whole and to the locality in the long run." Now we may point out that this interpretation is rather antiquated and that it is tending to create the situation it wants to prevent (Local Recalcitrance or Inertia) and failing to provide an incentive for capable and large men to serve on local bodies, as some of these men dismiss these bodies from their minds, as financially impotent.

The *raison d'être* for the existence of a grant-in-aid is of course the fact that our local-taxation-system is defective and as the Taxation Enquiry Committee have pointed out our local Revenue, has got to be supplemented by grants-in-aid, so long as our system of local taxation is not overhauled. There ought not to be any mistake made about the inherent tendency of grants. The very fact of its adoption, reduces substantially local independence. Dr. Griffith (*Modern City Government*, Vol. II, pp. 573—576) pertinently points out, that there was greater expansion in functions during 1905—1920, in American Cities, under conditions of local freedom, than occurred in the United Kingdom, under conditions of central direction. The testimony of recent Indian administration is equally striking. There has been, it must be admitted, greater all-round progress, registered, in the case of the deofficialized and decentralized Boards, than when they were, under the tutelage of the Provincial Government.

That local energy is desirable for national interests, can best be understood, when it is realized, how much more (as in the case of Panchayats) local functions develop, when they are undertaken by local bodies themselves, than those which are undertaken, entirely at the initiative of the Provincial Government. It has been claimed by the Punjab and Madras Governments, that there are numerous instances of satisfactory administration of grants. The official report (Report of the Registrar General of Panchayats) points out that "there are, detailed rules, regarding the administration of grants, to these schools. In their case, the Government pays a minimum grant of Rs. 15 per trained teacher and an equipment grant of Rs. 80 per school. The first year's experience of these schools, has been more than encouraging and furnishes not a little justification, for the hope entertained, that along the lines of this scheme may lie the correct solution of the twin problems of the proper authority for managing public Elementary schools in villages, and of the equitable distribution of the financial burden of Elementary Education." (The writer has seen the actual working of some of the Panchayat schools and he is not prepared to subscribe to the eulogy. This, of course, is a mere difference of opinion).

The Ideal of local Governmental finance is not so much Revision of the terms of grants-in-aid, as a system of local Taxation, which will endow localities with separate and adequate sources of Revenue. If we want some sort of control we may have as ideal, legislative, in preference to administrative centralization. In America, a study of the results of legislative centralization, would seem to indicate that the advisory departments of Government tend to be more serviceable, than compulsory departments, through their knowledge, smaller expense, absence of friction and lack of bureaucratic tendencies. The Taxation Enquiry Committee, has decidedly expressed itself that "a system of separation of resources is decidedly the best, if a scheme can be discovered, under which the allotment of certain sources of Revenue to the Imperial and certain others to State Governments, gives

each a revenue adequate to its needs and at the same time affects a fair division between the States." But as regards local Taxations, possibly the members of that Committee had not made up their mind. They do not give any lead to us on the entire-separation of local from Provincial sources of Revenues. The latest tendency observable in the U.S.A. (*vide* Article in the *American Political Science Quarterly*, Dec., 1923), is towards distinct separation between state and local resources.

It will have to be the task of Mr. Layton and other possible financial Advisors to the Simon Commission to devise an adequate system of local Taxation. They will have to consider this aspect of Indian finance, as important as the revision of the Meston Award. For there is no gainsaying the fact, that the award of the Financial Relations Committee, which constitutes the basis for the present distribution of Central and Provincial resources, has not worked satisfactorily in practice, during the last one decade, since it had placed too many sources of elastic resource, at the disposal of the Central Government, and starved at once Provincial Governments and Local Bodies.

Note.

It is only recently, that in Madras the Provincial Government has realized the necessity for making substantial grants to local bodies. The amount of grants rose from 99.9 lakhs (1926-27) to 129.17 lakhs in 1927-28. Of this amount, 62.46 lakhs went for Education and all other activities of local bodies, were to be financed from out of the balance. Realizing the necessity for Village Communications and Water-supply in rural areas, the Provincial Government made a special grant of 17.1 lakhs, for the same (*vide* Administration Report for 1927-28). On an average, the percentage of Government grants to ordinary expenditure has been, in the case of the Salem District Board 25 per cent, Kistna District Board 27 per cent, Madura District Board 28 per cent. In England, as every one knows, grants are far more substantial, averaging between 50 to 60 per cent of the local bodies' expenditure.

A PLEA FOR THE RECONSIDERATION OF THE FINANCIAL RESOURCES OF THE PROVIN- CIAL GOVERNMENTS AND LOCAL AUTHORITIES IN BRITISH INDIA

BY

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At the last Economic Conference I read a Paper on the division of functions and resources in India. That subject among others is still under the consideration of the Simon Commission and Mr. W. T. Layton has been specially attached to the Commission to give expert advice upon it to that body. In the coming year, after the report of the Commission is published, the subject should again come up prominently for discussion. So I venture to put forward my ideas about it once again before this academic body.

For sixty years, from 1858 to 1918, the revenues of the whole of British India were treated as one and the Government of India was responsible for the manner in which the revenues were applied to the purposes of the governance of India as a whole. In the Montagu-Chelmsford Report it was proposed to transfer the responsibility for certain important provincial services (e.g., education, sanitation, medical relief, rural roads, tanks and wells, agriculture, industries, etc.), wholly to the Provincial Governments which were to have popularly controlled legislatures. Even before the Reforms these services were of course administered by the Provincial Governments, but they did so merely as agents of the Central Government. The most important heads of revenue in the country were land revenue, excise, customs, income-tax,

opium, salt and surplus on railways. Of these land revenue and income-tax used to be divided before the Reforms between the Central and the Provincial Governments, and excise was divided in the case of some Provinces and wholly retained by other Provinces. The authors of the Report on Constitutional Reforms felt that if responsibility was to be transferred to the Provinces, the system of divided heads must come to an end. So they proposed that land revenue and excise should be made wholly Provincial heads, and customs, income-tax, opium, salt and the surplus on railways should be wholly Central heads.

In proposing this arrangement, the authors of the Report failed to give due weight to several very important considerations. Firstly, if the popular voice was to be allowed to become more effective in the legislatures, then it was only to be expected that the criticisms which for years had been made of certain aspects of public expenditure would become much more vocal, e.g., the excessiveness of the military expenditure and the consequent niggardliness in the matter of education, sanitation, and the other nation-building departments would attract greater attention and Provincial Governments persistently pressed to find more and still more money for the latter. Popular opinion would demand abolition of the drink evil which was condemned both by the Hindu and Muslim faiths. Land revenue administration and revision settlements would receive more critical attention. Secondly, if Central and Provincial resources were to be separated, the theory on the subject and the practice prevailing in federal countries like the United States, Canada and Australia ought obviously to have been consulted. In that case the authors of the Report would have been guided by the principles summarised in the Taxation Enquiry Committee's Report, viz.,

(1) Indirect taxes, with the possible exception of stamp duties, are commonly regarded as suitable sources of Federal taxation.

(2) Taxes on corporations are commonly Federal.

- (3) A personal or general income-tax is generally regarded as a source of State or Provincial revenue.
- (4) Excise duties are almost invariably Federal.
- (5) Taxes on property are seldom Federal and tend to pass increasingly from State or Provincial to Local Authorities.

Had the authors of the Report given due importance to these theoretical and practical considerations, they would have proposed that land revenue and personal income-tax should be wholly Provincial heads; customs, excise, opium, salt and surplus on railways should be wholly Central; that the Provinces should tax all personal incomes, agricultural or otherwise, in their own interests; that they should aim at transferring, as early as possible, the whole of land revenue to the Local Authorities for the purposes of rural education, rural sanitation and medical relief, rural public works, etc.; that the Central Government should aim at abolition of the drink evil all over the country and reduce its military expenditure in proportion to the successive decreases in excise revenue.

Had the financial re-arrangement been proposed on these lines, the result in the case of the major Provinces would have been as follows:—

PRE-REFORM ARRANGEMENT

Figures in Rs. lakhs for 1917-18

Provinces.	Land Revenue and Irriga- tion (half)	Income- tax (half)	Excise (whole or half)	Total
Bengal ...	... 150	103	126 (whole)	379
Madras ...	... 350	36	189 (half)	575
Bombay ...	... 259	102	294 (whole)	655
United Provinces ...	... 335	23	64 (half)	422
Bihar & Orissa ...	... 78	11	50 ,,	139
Punjab ...	... 209	17	33 ,,	259
Central Provinces ...	... 98	7	45 ,,	150

RE-ARRANGEMENT AS PROPOSED ABOVE

Figures in Rs. lakhs for 1917-18.

Provinces		Land Revenue and Irrigation (whole)	Personal Income-tax (whole)	Total
Bengal	...	299	104	403
Madras	...	703	65	768
Bombay	...	518	161	679
United Provinces	...	671	37	708
Bihar & Orissa	...	156	22	178
Punjab	...	418	30	448
Central Provinces	...	196	14	210

(Figures taken from *Statistics of British India*, 1920)

The above two tables show that under the re-arrangement proposed in my paper, every major Province without exception stood to gain, Madras, U.P. and Punjab stood to gain considerably. Yet they would have been free from the excise dilemma and free to develop the yield from personal income-tax by including agricultural incomes and in other ways. This gain on the part of the Provinces of course meant a corresponding loss by the Central Government. The figures for the same are as follows:—

PRE-REFORM ARRANGEMENT

Figures in Rs. lakhs for 1917-18.

Land Revenue and Irrigation (half)	...	1,753
Income-Tax (half)	...	355
Excise (whole or half as the case may be)	...	420
		<hr/>
Total	...	2,534

RE-ARRANGEMENT PROPOSED IN THIS PAPER

Figures in Rs. lakhs for 1917-18

Income-tax (companies only)	...	...	193
Excise (whole)	...	...	1,294
			<hr/>
Total	...		1,487

So the Central Government would under this re-arrangement have lost a revenue of Rs. 1,047 lakhs on the basis of the figures for 1917-18. That could have been met in exactly the same way as the deficit which was also going to occur, and curiously enough of about the same size, under the re-arrangement proposed in the Montagu-Chelmsford Report.

The financial results of that re-arrangement were as follows :—

RE-ARRANGEMENT PROPOSED IN THE MONTFORD REPORT

Figures in Rs. lakhs for 1917-18

Provinces.	Land Revenue & Irrigation (whole).	Excise (whole).	Total.
Bengal	299	126	425
Madras	703	378	1,081
Bombay	518	294	812
United Provinces	671	128	799
Bihar & Orissa...	156	100	256
Punjab	418	66	484
Central Provinces	196	91	287

Under this re-arrangement also, every Province stood to gain, Madras, United Provinces and Punjab stood to gain very materially. The Central Government stood to lose correspondingly, and the deficit was to be temporarily made up by withholding the additional spending power from the Provinces. But the Provinces

were to be placed on the horns of the excise dilemma so that though pressed ever so much by their legislatures to adopt the goal of prohibition, they could not possibly see their way to it because of financial considerations. Not merely that, but they would actually have to try to get more revenue out of excise if more money was to be spent on the nation-building departments.

I believe I have shown conclusively that the re-arrangement of the finances proposed by me would have been in accordance with the theory and practice on the subject; that it was entirely feasible when the Montford proposals were made; that it would have made both the Central and Provincial Governments shape their policy more in accordance with public opinion and given the Provinces an expansive source of revenue with which to get on with their nation-building programs.

What could easily have been done in the Government of India Act of 1919 can still be done but not quite so easily. The Provinces will now have to lose appreciably if they are to give up excise and receive personal income-tax in exchange. The following figures in Rs. lakhs for 1926-27 show what the loss would be:—

Provinces.	Income-Tax.	Excise.	Loss.
Bombay ...	321	409	—88
Bengal ...	569	225 + 344 (gain)	
Madras ...	128	510	—382
United Provinces	73	130	— 57
Punjab ...	64	124	— 60
Bihar & Orissa...	53	197	—144
Central Provinces	36	135	— 99

It is clear that all the major Provinces except Bengal would stand to lose at least at the outset, and the Central Government would correspondingly gain. But the remedy obviously would be that the Central Government should for a period refrain from benefiting until the Provincial Governments have had time to read-

just matters and if the Central Government is to aim at Prohibition, this enforced financial abstinence would indeed be a very desirable thing.

I have already shown that no discontent of this kind would have been created in the Provinces had the re-arrangement that I have proposed been carried out in 1919. But the mistake of ten years ago can still be rectified. It is, in fact, very essential in my view that it should be rectified as early as possible and our finances in the Central, Provincial and Local spheres placed on a theoretically sound and yet eminently practical basis.

MARKETING OF AGRICULTURAL PRODUCE IN THE BOMBAY KARNATAK

BY

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SUMMARY

In this Paper an attempt has been made to survey the marketing organisation of agricultural produce in the Bombay Karnatak with special reference to marketing and finance of cotton, the principal ' money crop ' in the Southern Maratha country. The relative position of different crops and the changes in their distribution between 1913-14 and 1927-28 have been indicated.

The attempts made by the Agricultural Department from time to time to improve the different types of cotton in the Bombay Karnatak have been detailed and the part played by the Sale Societies in expanding the area under improved varieties has been described. The magnitude of the principal cotton markets in terms of the arrivals of cotton bales and their estimated value has been indicated. Various methods of marketing cotton such as, (1) sale of standing crops, (2) sales in the village, and (3) sales in the market have been examined and the unfair incidence of market customs and charges on the grower has been analysed. Wherever possible, an attempt has been made to discuss the contrast between current ideas in respect of marketing and finance of cotton in the Bombay Karnatak and the findings of the Indian Central Cotton Committee in respect of their eight investigations regarding similar problems in other cotton tracts. The need for an intensive inquiry on the same lines in the important Dharwar-Kumbla cotton tract has been strongly emphasised.

The organisation of Co-operative Cotton Sale Societies, their aims and functions, and the method of cotton sales by auction have

been next examined and the substantial benefits, accruing to the grower and the buyer alike have been mentioned. The handicaps of Sale Societies and their needs, as also the direction in which suitable State help might be extended to them have been indicated.

A brief treatment of the marketing of other farm products in the Bombay Karnatak such as, groundnut, paddy, chilli, tobacco, arecanut, *jowar* and wheat follows and the Paper closes with a strong plea for the improvement of the existing marketing organisation of agricultural produce through the establishment of Sale Societies fully equipped to sell the produce of their members, as far as possible, in finished form, and through the creation of regulated markets.

Need for Improved Marketing Organisation: It is a world-wide complaint of the agriculturist that he does not receive a square deal and a fair share of the value of his produce, though the handicaps under which the cultivator is labouring are felt to a marked degree in India more than elsewhere. These handicaps arise on account of heavy indebtedness, the low standard of literacy, unsatisfactory communications, the absence of properly regulated markets and the lack of combination among producers. Marketing of agricultural produce has assumed quite a new aspect owing to the transition in Indian agriculture caused by the opening up of the country by steam, railway and road communication. Agriculture has been commercialised and the advent of 'money crops' such as, cotton, wheat, groundnut, etc., has called into existence a complex economic organisation and has created a new range of marketing problems. The agriculturist now grows not only

¹ This Paper is mainly based upon Annual Reports, Memoranda and other papers supplied to me through the courtesy of Mr. S. S. Salimath, B. Ag., Deputy Director of Agriculture, Southern Division, Bombay Presidency; Mr. C. B. Huli, B.A., Assistant Registrar of Co-operative Societies, Southern Division; Mr. S. V. Shevade, L. Ag., Cotton Superintendent, S.M.C.; and Rao Saheb G. S. Shirhatti, Managing Director, the Co-operative Cotton Sale Society, Hubli. I am much indebted to these gentlemen for the facilities they have offered me in preparing this paper.

for his needs, but also for the outside market. Being mainly concerned, however, with production and being handicapped by the force of custom, he is ill-fitted today successfully to play the new role of a businessman that has been thus thrust on him. "He is an infinitely small unit as compared with distributors and the consumers of his produce who, in their respective fields, become every year more highly organised and more strongly consolidated."² Even if literacy and enlightenment were more widespread in the rural areas than at present, the isolated agriculturist can never possibly specialize in the commercial side of his business and the only satisfactory solution of the problem lies in the establishment of a collective farmers' sale organisation on a co-operative basis. The fact that an efficient system of marketing is an indispensable ally of a successful co-operative movement on the one hand, and of improved agricultural practice on the other, has hitherto been insufficiently realised in this country. Until the agriculturist is enabled to deal direct with the market to sell his produce under the most favourable conditions, it is clear that he can never hope to derive from his industry any fair share in its produce, and that the credit which he obtains for purposes of current cultivation fails to secure him half its benefits. The advice given him by the Agricultural Department to grow improved varieties falls on deaf ears unless he can turn the product of that cultivation to advantage. All this particularly applies to the Bombay Karnatak where the Co-operative Credit movement has spread rapidly, and where the efforts of the Agricultural Department to introduce improved varieties of cotton and other crops have so far met with an encouraging response. A permanent and stable progress can however, be achieved only by the establishment of a satisfactory marketing organisation.

Scope of the Paper: In this Paper I propose to discuss the marketing organisation of the principal crops in the Bombay

² *Agricultural Commission's Report*, para 320.

Karnatak, which comprises of the four districts of Belgaum, Bijapur, Dharwar and Karwar (Kanara). As cotton is the predominant type of 'money crop' in this Division, it is proposed to treat it in greater detail than other crops like, paddy, chillies, tobacco, arecanut, groundnut, etc. *Jowar*, which is the staple food crop of the people in the Bijapur, Dharwar and Belgaum districts has not so far been dealt with on a co-operative basis in spite of a considerable export from Bijapur and Dharwar. Wheat occupies a comparatively smaller area and has not yet received much attention so far as its marketing problems are concerned.

Area under Principal Crops³: It is convenient at this stage to give below statistics of area under cultivation of the principal crops in the Bombay Karnatak:—

IN ACRES

	RICE		WHEAT		JOWAR		BAJRA	
	1913-14	1927-28	1913-14	1927-28	1913-14	1927-28	1913-14	1927-28
Belgaum ...	108,261	116,937	102,617	94,754	662,895	551,123	147,853	186,906
Bijapur ...	4,225	4,933	174,039	160,912	1,528,709	1,280,700	387,708	423,044
Dharwar ...	151,231	153,806	244,675	232,941	571,937	527,288	5,667	7,626
Kanara ...	176,188	169,015	...	...	789	773	...	...
Total ..	439,905	444,661	521,331	488,607	2,764,330	2,360,484	541,228	618,176

	Other food-grains and pulses		Oilseeds ⁴		Cotton		Tobacco	
	1913-14	1927-28	1913-14	1927-28	1913-14	1927-28	1913-14	1927-28
Belgaum ...	235,827	249,864	40,059 (19,096)	160,245 (44,372)	171,860	308,839	39,965	41,667
Bijapur ..	169,093	198,154	102,428 (445)	84,930 (3,694)	387,328	711,211	500	1,697
Dharwar ...	243,777	279,674	35,178 (164)	96,432 (62,297)	659,967	705,393	278	639
Kanara ...	6,144	6,684	527 (60)	12,641 (176)	2	...	1	...
Total ...	654,831	734,376	178,192 (19,765)	254,248 (110,539)	1,219,157	1,720,443	31,744	44,003

³ Season and Crop Reports of the Bombay Presidency for 1913-14 and 1927-28.

⁴ Figures in brackets in the column for oilseeds are for groundnut.

From the above table some idea can be obtained regarding the relative importance of the various crops in the four districts of the Bombay Karnatak and the change in their position in 1927-28 as compared with the pre-war year 1913-14. It will be noticed that Kanara is principally a rice-growing district and has to its credit a small area under oilseeds, especially cocoanut. It has also some gardens (not shown in the above table) under arecanut, cardamom, etc. The other three districts grow a variety of crops, the principal ones being the two varieties of millet (*Jowar* and *Bajra*), cotton, pulses, rice (which is insignificant in Bijapur), oilseeds and tobacco (which is mostly confined to Belgaum). It will also be seen that the principal increases, during the period under review, in the area under cultivation have been under cotton in all the three cotton-growing districts and under groundnut which has in recent years rapidly increased, especially in Dharwar. On the other hand, the area under *Jowar* has shown a decline thus confirming the popular impression that non-food crops like cotton and groundnut have been gaining at the cost of food crops though the balance is still largely in favour of food crops. We may now pass under review the marketing of the principal crops in the Bombay Karnatak with special reference to conditions of cotton marketing.

I. COTTON

Principal Types of Cotton: Cotton stands pre-eminent among the principal money crops in the Southern Maratha country in point of ease and cheapness of production, and under the influence of ready demand and high prices in recent years, has made marked strides in the Southern Division. It forms the chief rotation for *Jowar* and wheat, the staple food grains of the cultivator. In the Dharwar American tract almost no rotation is followed, cotton after cotton being sown over a series of years.⁵ In the Southern

⁵ Article on *Rural Enquiry in the Dharwar District* by S. G. Beri, *Bombay Co-Operative Quarterly*, June, 1925

Maratha country two types of cotton are grown: (i) *Kumpta* which is an indigenous variety, and (ii) Dharwar American (called Sawgin Dharwar in the market) which is a survival of American cotton tried by the East India Company as far back as 1830. This experiment succeeded only in East Dharwar and a part of the Punjab. The area under this variety is comparatively small being about 3 lakh acres. By far the larger area is under the *Kumpta* variety. *Kumpta* has a fine staple. 6/8 inch to 1 inch long, a ginning percentage from 24 to 27 and is suitable for spinning 20^s to 30^s warp. The other variety is somewhat inferior. The earlier efforts of the Agricultural Department for the improvement of cotton which began in 1906 were, until 1916, concentrated upon the introduction of new varieties such as Broach and Cambodia. But as these varieties did not fare well attention has since been directed to the improvement of the local varieties of the different tracts by selection of superior strains and by hybridisation. The two principal varieties of improved cottons are known as Dharwar No. 1 (*Kumpta* selected) and Gadag No. 1 (Upland) and are intended to displace *Kumpta* ordinary and the Dharwar American varieties. Dharwar No. 1 has a more uniform staple length 7/8 inch to 1 inch and is suitable for 34^s to 40^s warp. This cotton is now dealt in mostly by the Hubli Cotton Sale Society. Gadag No. 1 has a similar staple and is suitable for spinning 30^s to 38^s warp. This cotton is dealt in mostly by the Gadag Cotton Sale Society. Mill-owners and exporters highly prize these improved cottons and pay premium prices for them. The area under these varieties is showing a steady progress, for example, the area under Dharwar No. 1 increased from 900 acres in 1916-17 to 1,77,800 acres in 1927-28 and that under Gadag No. 1 from 500 acres to 1,02,000 acres during the same period. In recent years the Cotton Sale Societies of Hubli and Gadag have played a very valuable part in stocking pure seed and distributing it among growers under a seed distribution scheme approved by the Agricultural Department. Both the Societies have maintained

' reserve areas ' for the multiplication on the cultivators' farms of the third generation seed supplied by the Government Farm at Dharwar. The produce of the fifth and sixth generation seed which is distributed among cultivators is sold by auction through the Sale Societies who buy back the seed from the merchants to whom cotton is sold. The seed-distribution scheme, whose progress has so far been encouraging, cannot expand sufficiently rapidly as it is passing beyond the financial capacity of the Sale Societies and has involved them in some loss. The Indian Central Cotton Committee has recently announced its intention to render financial help to the Societies in the matter. As the improved varieties of cotton, when sold by auction by the Sale Societies fetch premium prices, the part played by these bodies in pushing forward the cultivation of improved cottons and increasing the receipts of the growers can hardly be exaggerated. The Agricultural Department has found the Sale Society a very convenient propagandist agency for the spread of improved varieties introduced by the Department.

Cotton Markets in the Bombay Karnatak and Their Magnitude: There are in all 11 cotton markets in the Southern Maratha country, including Indian States on the borderland, where exporters and domestic buyers purchase their requirements through their representatives and *Dalals* (Commission agents). Included in the areas controlled by some of these bigger markets, there are other smaller markets such as, Annigeri, Haveri, etc. The sub-joined table gives the details of arrivals of bales in each of the market places with approximate values⁶:—

⁶ Figures are averages of ten years from 1915-16 to 1925-26. *A Note on the Marketing of Cotton in the Southern Maratha Country* by V.R. Dharwarkar, M. Ag., Cotton Superintendent, S. M. C., Dharwar (4th August 1926).

Name of the Market Place.	Cotton arrivals in Bales of 400 lbs.	Approximate value at Rs. 350 per Kandy of 784 lbs.	Number of Dalals.
		Rs.	
Hubli	1,00,000	1,75,00,000	80
Gadag	60,000	1,05,00,000	60
Dharwar	3,000	5,25,000	15
Savnur	10,000	17,50,000	10
Bijapur	25,000	43,75,000	40
Bagalkot	30,000	52,50,000	50
Bailhongal	15,000	26,25,000	15
Athani	10,000	17,50,000	10
Miraj	10,000	17,50,000	10
Sangli	5,000	8,75,000	5
Kudchi, Jamkhandi, Mudhol and Davangeri ...	18,000	31,50,000	15
TOTAL ...	2,86,400	5,60,50,000	310

The total average area under cotton for the ten years 1915-16 to 1925-26 calculated for the purpose of the above table was 15,12,793 acres. The table shows that Hubli and Gadag are far and away the most important cotton markets and it is but natural that the Cotton Sale Societies at these centres are very substantial as compared with those at some of the other centres as will be shown later on.

Methods of Marketing: Cultivators dispose of their produce mostly in the form of *Kapas* (unginned cotton) in one of the following ways:—(a) by selling the standing crop, (b) by selling the *Kapas* in their own villages, and (c) by taking the *Kapas* or,

to a very small extent, lint (ginned cotton) to one of the small or the big cotton markets mentioned above. About 5 per cent of the cotton cultivators, who are in need of money or who think that they will get better prices for the standing crop, sell it before it is picked, to petty village merchants who speculate on the prices of cotton in the coming season and deduct all charges, incurred from picking up to disposing of the crop, from the estimated yield. Thus this procedure is generally unprofitable to the cultivator and there has been a welcome decline in the percentage of cultivators who sell their standing crops. (c) About 20 per cent of the cotton-growers pick up their *Kapas* and sell it in their villages to the petty merchants, who in their turn sell it in the cotton markets or to street buyers (*Pinjaris*). It is thought that the country merchants deceive the ignorant cultivators in weights, scales, etc., though, on the other hand, the latter save themselves the expense and trouble of taking their produce to the market and thus do away with the *Dalal* and his commission. In some parts of the Division the state of communications is so bad after a pre-monsoon shower or two that growers have either to dispose off their produce as best as they can in the villages, or postpone by a few weeks the consignment of their cotton in country carts to one of the cotton markets.

Sales in the Market: (c) In the Bombay Karnatak by far the largest proportion of the sales of cotton is effected in the various cotton markets through *Dalals* who charge a certain commission to the cultivator as well as to the buyer. The volume of such sales has been estimated at about 75 per cent.⁷ Apparently there seems to be a good deal of contrast in this respect between this figure and the figures arrived at in the Report on the eight investigations into Finance and Marketing of cultivators' cotton made by the Indian Central Cotton Committee. Excluding Berar, where

⁷ Written Statement of Rao Saheb G. S. Shirhatti submitted to the Royal Agricultural Commission, Evidence, Volume II, Part II, pp. 282—286

the existence of organised markets, facilitates a larger percentage of sales in the markets the investigations show that nearly three-fourths (72 per cent) of the crop is sold in the village and only one-fourth (28 per cent) is taken to the market for disposal. This is attributed largely to defects in the market system of sales as it exists at present and to the, on the whole, more satisfactory system of sales in the village; and it is held that lack of adequate transport facilities and means of communication is only a negligible cause of this preference for village sales.⁸ It is a matter of regret that the Cotton Committee, while they have carried out intensive market surveys in the various other cotton tracts of India have hitherto omitted the important Kumpta-Dharwar tract and the hope may be expressed that the Committee would soon make good this omission. The Committee's General Report makes several interesting revelations and shows that the results of inquiries are often at variance with current ideas, and it is highly essential, therefore, that such an enquiry should be held in this important cotton tract of India. This is also in accordance with the opinion of the Royal Commission on Agriculture that "market surveys are an essential preliminary to the formulation of an effective policy for the improvement of marketing" (para 347). We shall have occasion to notice in the sequel how there are several ideas current in the Bombay Karnatak, as elsewhere, regarding the finance and marketing of cotton and other agricultural produce which are out of harmony with the more authoritative findings disclosed by the investigations carried out by the Central Cotton Committee.

Method of Marketing Cotton through Dalals: Cotton is brought by the ryots to the markets near their villages and by the substantial cultivators to big markets as those at Hubli and Gadag. It is stuffed in big gunny bags called *dokras*, each weighing about 12 maunds of 28 lbs. each (336 lbs. in all). Only a few

⁸ *General Report on Eight Investigations into Finance and Marketing of Cultivators' Cotton, 1925-28* (Indian Central Cotton Committee), pp. 21-22.

(about 5 per cent) well-to-do cultivators get their cotton ginned in the ginning factories near their villages before it is taken to the market for disposal. When the cotton arrives in the market it first goes to one of the *Dalals* who keeps it in the open space or godown intended for the purpose. It is not weighed in the presence of the owner. The *Dalal* notes down the number of *Dokras* and writes on each of them the name mark of the owner. The *dokras* are then kept mixed with others and the *Dalal* generally sells all the *kapas* in one lot. Sometimes the *kapas* of those cultivators who come from the villages noted for producing the better sort of cotton is kept and sold separately to secure a higher price for it. In big markets selling is done every day, but in the smaller ones once in two or three days. Unless a cultivator asks his *Dalal* to hold his *kapas* for better price, which is rarely done,⁹ the *Dalal* sells all the *dokras* with him on that day. The *Dalal* is a middleman who sells the cotton of his client to the buyers receiving for his service a fixed remuneration from both. As the table on page 595 shows there are a number of *Dalals* in every village and their number is increasing. As they naturally depend for their success on the number of cultivators bringing cotton to them, every one tries his best to secure as many of them as possible to his side and, a common and favourite device adopted for the purpose, is that the *Dalal* accommodates the cultivator, who is generally in need of money to pay his taxes and other dues, with a loan on the security of his crop taken as lien. The *Dalal* in addition to receiving interest, which may vary from 12 to 24 per cent, acquires a more or less firm hold over his client who usually borrows from him and sells his cotton through him. Thus

⁹ This general impression is again at variance with the findings of the Indian Central Cotton Committee in other cotton tracts. The Committee observe: "... it was generally believed that lack of finance and pressure by the lenders rendered it impossible for the cultivator to hold his crop for high prices, except for very short periods. The inquiries have shown that as a general statement this is not true and that cultivators in most of the areas can and do hold their crop up." *Ibid.*, p. 7.

the *Dalals* are not only commission agents but also serve as *Sowcars* or moneylenders to the ryots. It has been estimated that about 70 per cent of the cultivators are thus indebted to the *Dalals*. This estimate is again at variance with the conclusion arrived at during the Cotton Committee's investigations elsewhere that, "It can be laid down as an axiom that in the area investigated the *Dalal* as such does not take any direct part in financing the cultivator." In the Committee's opinion the general impression to the contrary is probably due to the fact that in some areas, the *Dalal* or the agent of the big cotton merchant is himself the local *Sowcar* and in other cases, where the *Dalal* or agent is distinct from the local *Sowcar*, the former may possibly be financing the latter to a certain extent. These considerations perhaps would apply to this tract also. In the absence of any reliable statistical data, such as have been collected by the Committee in other tracts it is not possible to explain the large part which, it is generally supposed, the *Dalals* play in financing the cultivator at various stages, during cultivation and marketing. Also, it is difficult to reconcile this with the progress made by the Co-operative Credit Societies in this Division, especially in the Dharwar district. The following table shows the relative position of Co-operation in the various districts of the Bombay Karnatak in 1928-29¹⁰:—

Name of the District.	Number of villages in the district.	Number of societies in the district.	Percentage of societies in the district.	Percentage of societies' members to total population in the district.	Working capital per member in the district.
					Rs.
Dharwar...	1,384	628	45.3	7.10	142
Bijapur ...	1,112	215	19.3	2.30	88
Belgaum...	1,133	239	21.1	3.30	122
Kanara ...	1,355	128	9.4	5.10	121

The above table includes all classes of co-operative societies,

¹⁰ Written Statement of Mr. V. S. Bhide, I. C. S., Registrar of Co-operative Societies, Bombay Presidency, placed before the Bombay Provincial Banking Enquiry Committee.

but as the large majority of them are credit societies, the figures give a fair idea of the progress made by the latter. Dharwar district tops the list and shows the largest percentage of societies to villages and of societies' members to total population. The working capital per member is also more substantial than in the other districts. But there are several flies in the ointment. In the first place, not all the cultivators, even in a village where a credit society exists, join the society, nor all those who join are financed by it. Moreover, there are often complaints made regarding inadequate and untimely finance, and while these cannot be taken at their face value, there is little doubt that there is a certain substratum of truth in them. It is of course rather difficult to apportion the blame for this state of affairs. It is perhaps due both to the delay in submitting a proper normal credit statement regarding their requirements by the societies to the District Central Co-operative Bank and to the delay in scrutinising it and sanctioning it by the latter. Moreover, a large proportion of overdues, which may accumulate either because of adverse agricultural seasons or slackness on the part of committee members in collecting the dues of the members of their society, often results in the curtailment of fresh advances by the Central Bank of loans to the Societies. Something perhaps must also be put down to the ingrained habit of the average cultivator to borrow recklessly beyond his means and from anybody who is prepared to lend him ready cash. It may also be pointed out that the maximum limit of borrowing for each member is fixed more or less collectively for the whole society and this procedure does not admit of the requisite elasticity in supplying the needs of individual members. All this may be admitted and yet it is quite clear that unless the indebtedness to *Sowcars*, *Dalals* and other lenders outside the Co-operative agency is replaced by indebtedness only to the latter and there is adequate and prompt finance, the Sale Societies can never aspire to win over to their side the growers of agricultural produce.

The Customs of the Market: The existing markets for agricultural produce in the Bombay Karnatak are unregulated markets. Though a permissive legislation (The Bombay Cotton Markets Act, 1927) on the model of the regulated markets in Berar has recently been placed on the statute book, the Act has not so far been applied to any of the districts of the Bombay Karnatak. In the absence of such markets, the somewhat nebulous force of market customs, which are enforced by committees of merchants and *Dalals*, rules supreme in the market. The force of these customs is so strong that even Co-operative Sale Societies have had to follow them on pain of incurring the hostility of the *Dalals*. That this is by no means an imaginary contingency is shown by the boycott of the Gadag Cotton Sale Society by the *Dalals* of that market on two occasions in recent years. Before examining the customs of the market regarding the various deductions made from the price paid to the grower of cotton, a word or two may be said here about the buyers in the cotton markets. The buyers are the representatives and agents of millowners in Bombay, Sholapur, Bangalore, etc., or of export firms like Ralli Brothers or the Japan Cotton Company. Local speculators and expert traders also buy cotton for being sent to Bombay.¹¹ All

¹¹ Most of these buyers prefer *kapas* to ginned cotton as they want to avoid the risk of the lint cotton being mixed with dust or inferior cotton at the ginning stage. Before the passing of the Cotton Transport Act in 1923, under which the Karnatak Cotton tract is now protected, inferior cotton from Khandesh and fly and waste cotton from mills was freely imported into this area of superior long-staple cotton. Now though this is no longer possible, and the purity of the local cotton is largely assured, there is no guarantee against internal mixing in the tract itself. Large buyers, therefore pay better prices for unginned cotton than for lint cotton and make their own arrangements for getting the former ginned and pressed into bales before being sent to the mills or ports. Some buyers do their own mixing after *kapas* is purchased, and malpractices at the pressing stage as well have not yet been properly checked in spite of the Cotton Ginning and Pressing Factories Act, which followed the Transport Act in 1925 as a supplementary measure. The East India Cotton Association and the Indian Central Cotton Committee, it is understood, are devising further measures in the interest

these buyers do business in big lots within price limits sanctioned by their principals. They receive information regarding price quotations every day from Bombay, Liverpool and other big cotton markets of the world and base their calculations on it. But their rates do not necessarily agree with the cotton quotations in the Bombay market, and also vary according to the demand and supply in the local market. In any case, there is no satisfactory system of giving them wide publicity in the interest of the cultivators who are ignorant about them and who are often not even present when the sale of their produce is being effected, especially if the market is slack and their cotton cannot be immediately disposed of. Moreover, the rates are not declared openly being settled privately between the *Dalal* and buyer under cover. Before settling the bargain each *dokra* of cotton is pierced by a knife and sample is taken out and inspected by eyesight, and this happens in the case of every fresh prospective buyer. The sample *kapas* so taken out is not replaced but is thrown away carelessly and ultimately becomes the property of the *Dalal*. In this way the grower loses one or two lbs. of *kapas* and as the *dokras* are not weighed when they arrive in the market, it is not possible for him exactly to ascertain the loss sustained by him during the time the *dokras* are lying with the *Dalal*. As the *dokras* belonging to various clients are mixed and sold in lots, they fetch prices on their average quality with the result that the owner of superior *kapas* is put to loss. When the bargain is struck the *dokras* are weighed on a big beam scale in the presence of the buyer. As already stated above, the owners are often not present when the rate is being settled or their cotton is being weighed. While weighing *bardan*, or the tare-weight of the gunny, is deducted from the weight of the *dokra*. This varies

of the purity of trade. Bombay, Karnatak would welcome any reasonable measures calculated to ensure the purity of the improved cottons and their demand that these cottons should be made tenderable in hedge contracts by the East India Association deserves a sympathetic consideration at the hands of the latter.

in different markets according to the weight of the *dokra*. In the Hubli and Gadag markets, usually 13 lbs. are deducted for a *dokra* weighing up to 13 maunds and two lbs. more for every additional maund, though the actual tare-weight is about 7 to 8 lbs. only. The extra margin is provided for by way of covering the damage to the *kapas* while carting, stacking and weighing. Moreover the gunny bag which, if new, costs about Rs. 2-8-0 and if second-hand, Rs. 1 to 1½, is not returned to the grower but is given to the buyer free of charge. Another market custom, which operates to the detriment of the owner of cotton is, that, while settling the account of the buyer 2 lbs. of sample *kapas* per *dokra* are deducted out of its net weight and given to the buyer. Payment is made within three days after the sale is effected. The basis of weight differs in different markets and is an endless source of inconvenience. In Hubli and Gadag markets the basis of weight is a *Naga* of 48 maunds of 28 lbs. each for *kapas* and of 12 maunds of 28 lbs. each for lint. Allowance for inferiority of quality or admixture is made while taking delivery and the buyer can reject the bargain if the stuff does not conform to the sample. This is a very elastic custom and the chances are that, more often than not, the cultivator must accept more or less arbitrary deductions. In fact, it is freely alleged that the *Dalals* are more keen on pleasing the buyers and consulting their interests rather than those of the cultivators, though in fairness it must be admitted that dishonest *Dalals* are an exception rather than the rule. The following table shows the various deductions made in the Hubli and Gadag markets for *kapas* :—

HUBLI—

<i>Dalali</i> (Commission) ...	...	...	Re. 1-0-0	per	<i>Naga</i>
<i>Dharmadaya</i> (charity) ...	...	...	„ 0-1-6	„	
<i>Hamali</i> (weighing charges) ...	...	...	„ 0-1-6	per	<i>dokra</i>
<i>Panjerpol</i> (cow protection) ...	...	...	„ 0-0-6	„	

GADAG—

<i>Dalali</i>	...	...	...	Re. 1-0-0	per	<i>Naga</i>
<i>Dharmadaya</i>	...	...	...	„ 0-1-6	„	
<i>Hamali</i>	...	...	...	„ 0-1-0	per	<i>dokra</i>
<i>Panjerpol</i>	...	..	...	„ 0-0-6	„	

Commission and other charges differ in different markets but they do not differ in the same market. The ' Panjerpol Charity Fund ' is an organised body and maintains account. The other fund is a personal concern of the *Dalal*. It has already been said above that 2 lbs. of sample per *dokra* are deducted out of its net weight and given to the buyer who is also entitled to the *bardan* or gunny bag. Thus all told, there are considerable deductions of all kinds, some fair and others of the nature of imposts on the cultivator. The *Dalal* after making all these deductions and allowances and also deducting the amount of the loan advanced by him to his client, if any, and interest charges hands over the remaining sum to the latter.

Thus the existing system of market sales is considerably defective and is not calculated to ensure businesslike and fair dealings on the one hand and a premium price for improved varieties of cotton on the other.¹² The principal remedies for this state of affairs are: (i) organisation of Sale Societies or Sale Unions on a Co-operative basis, and (ii) establishment of regulated markets on the Berar model. It may be made clear, however, that the object of this reform is not to do away altogether with the middle-man, who has a definitely legitimate and useful role to play in the modern complex marketing organisation. The reform is mainly intended to lessen their excessive number and to ensure fair dealings both for the buyer and seller. We may now proceed to discuss briefly the two principal directions in which marketing reform is necessary here as elsewhere.

¹² Written Statement of the Indian Central Cotton Committee. Agricultural Commission, Evidence, Vol. II, Part II, p. 16.

Co-operative Cotton Sale Societies: Co-operative marketing of cotton through Sale Societies was introduced in the Dharwar district about 1917 and has now made considerable headway in that district. It has also been now extended to Bijapur and Belgaum. The establishment of Sale Societies was preceded by the system of auction sales of graded *kapas* of the improved types under the auspices of the Agricultural Department. As the *Dalals* received their commission on one side and as the object of the Departmental sales was not the elimination of the middleman, the *Dalals* co-operated with the Department. The advent of Sale Societies and the anti-*Dalal* propaganda which has been at times tactlessly conducted, has created a clash of interests, and at any rate in the case of the Gadag Sale Society things were at one time as bad as they could be, though now luckily a compromise has been effected. This serves at once as a warning to co-operative bodies and as a sample of some of their handicaps.

There are at present eight Cotton Sale Societies in the Bombay Karnatak; at Hubli, Gadag, Dharwar, Annigeri and Haveri in the Dharwar district; at Bijapur and Bagalkot in the Bijapur district; and at Bailhongal in the Belgaum district. Those at Hubli and Gadag are by far the most substantial, though even these, at the most liberal estimate, have not so far captured more than a fifth or sixth part of the total volume of market sales. Some of the societies, as those at Haveri and Annigeri, are in a stagnant condition being overshadowed by their bigger rivals at Hubli and Gadag. The Society at Dharwar has not been functioning for some time owing to inefficient management and vicinity of the Hubli market. A hopeful solution of the difficulties created by this overlapping is to re-organise the smaller societies as branches and agencies of the larger ones.

The Organisation and Business of Cotton Sale Societies: The primary aim of a Sale Society is threefold: (1) to sell the

cotton of its members for adequate prices by the auction method, (2) to supply them with pure cotton seed, gunnies and *bardans*, and (3) to disseminate information regarding agriculture and trade among the growers and buyers. The constitution of the existing societies is a mixed one and both individuals and societies are admitted as members. Even non-members' cotton is sold through the society, the justification being that thereby they would be induced to become members. Of course the non-members do not get the bonus on sales which is distributed among members only. In the initial stage, all these departures from the ideal constitution, viz., a Sale Union or Federation of Credit Societies, are perhaps inevitable, but a steady attempt is necessary to get, as near as possible, the ideal type. Members are admitted on condition of taking up a share or shares in the society and agreeing to sell their produce through it. In case any of them is a member of a Credit Society and is financed by it to grow *kapas*, he is required under its by-laws to sell his produce through the Sale Society working in the area in which the Credit Society is situated. Failure to comply with this by-law makes the recalcitrant member liable to a fine of rupee one for each acre of cotton so grown by him. It would appear from the Report of the Assistant Registrar of Societies that this by-law is respected more in the breach than in observance. The question of members' loyalty raises some difficult problems. The members concerned are not, however, altogether to blame for this alleged breach of agreement, for as has been shown above, the Credit Societies do not always extend adequate and timely finance to their members and as things improve in this respect and the Credit Society, Central Bank and Sale Society all work in harmony, the loyalty of the members can be relied upon to an increasing extent. Even then, there might be some cases of breach of agreement, and it seems under the existing Indian Contract Act such contracts are not enforceable by an injunction from a Civil Court and do not entitle the Sale Society to claim damages for non-delivery. In this respect

the Indian Law differs from the American Law and the matter is one which must be carefully gone into by trained lawyers.¹³

Method of Sale through the Cotton Sale Societies: When cotton is brought to the Sale Society the *dokras* are weighed in the presence of the owner and a receipt is passed to him. If he wants any advance, it is paid to him by the Sale Society up to 60 per cent of the estimated value of his *kapas*.¹⁴ Such *dokras* are kept in a separate compound or godown and different serial numbers run for different varieties of cotton. Market customs in respect of tare and sample allowance are also followed by the Sale Societies. The next stage is grading of the *kapas* according to its colour, cleanliness and ginning percentage and for this purpose 1 lb. of sample cotton is taken out from each *dokra*. The grading work is done by an expert grader lent to the Society by the Agricultural Department. In the absence of their own gins Sale Societies are somewhat handicapped in getting the sample *kapas* ginned for grading purposes under the personal supervision of the grader. The class of the *kapas* being thus determined each *dokra* is given its appropriate label and about 800 *dokras* falling in the same class are lumped together in one or two lots. The date of the auction, which during the cotton season may be held once a fortnight, is then announced and statements are sent to the buyers with average sample of each class. Since all the principal representatives of mills and exporting firms attend the auction sales there is a keen competition among them and experience shows that higher prices are realised by this method. The auction sale is held on the Society's premises and the lot is

¹³ A Note on Co-operative Marketing and Co-operative Sale Societies for Agricultural Produce by Mr. Otto Rothfeld and Dr. Harold Mann (24th December, 1922).

¹⁴ In this connection it is perhaps useful to point out that the investigations made by the Central Cotton Committee in other tracts go to show that substantial amounts are not required at harvest and marketing time and that in most cases the only loans taken are those at or about the time of the commencement of the cultivation operations. *General Report on Eight Investigations*, etc.

sold to the highest bidder, though the society reserves to itself the right of not accepting the highest or any bid. The system of auction sales is also welcomed by the buyers because they can get standard guaranteed grades of *kapas* in big lots at each auction. The trend of market prices is closely watched and the cultivators are kept duly informed about the current prices and are carefully advised when to sell their cotton. Unless the owners advise the Society to sell their cotton it is not offered for auction. Besides effecting sales by auction system, *kapas* is also sold by private treaty and in this case too the owners realise better prices than through *Dalals* and are assured of correct weighing and are protected from arbitrary and improper allowances. The Society charges one rupee per *Naga* to the cultivator who brings in the cotton and one rupee to the buyer. Marketing charges such as *Hamali*, stacking, godown rent, insurance, etc., are charged to the producers. Grading, however, is done at the cost of the Society and the sample *kapas* is carried to the sample account. After meeting all the expenses and carrying one-fourth of the profits to the reserve fund, the balance is distributed as dividend on the share capital and as bonus among the members on the basis of the number of *dokras* brought for sale. Thus though the cultivator has to pay much the same commission and other charges to the Society as to the *Dalal* and has to submit to sample and *bardan* allowances in the name of market custom, he gets a rebate in the form of dividend and bonus.

Benefits of Co-operative Sale: It will be seen that the Co-operative Sale Organisation offers the following advantages:—(1) Weighing is made in the presence of the cultivator and a receipt is passed to him, (2) adequate and high prices are realised under the auction method of sales, (3) no indiscriminate allowance to the buyers is granted, (4) produce is insured against damage or loss by fire, (5) prompt payment of sale proceeds is made to the owners of cotton after it is received from the buyer according to market custom, (6) a loan is advanced on the deposit of goods

up to 60 per cent of the market value at low rates of interest, i.e., Rs. 9-6-0 per cent per annum, (7) information regarding daily fluctuations in the Bombay market is obtained to secure satisfactory prices for *kapas*, (8) superior quality cotton is sold in big lots properly graded and by correct weights, (10) gunnies, *bardans* and genuine and certified seed of improved types of cotton are supplied to the members, (11) a bonus is paid on the quantity of *kapas* sold and dividends are given on the share amount. The following table gives an idea regarding the progress of the Cotton Sale Societies at the eight centres in the Bombay Karnatak and their relative position:—

Name of the centre [and year]		Number of members	Quantity sold in maunds of 80 lbs.	Prices realised	Commis- sion earned	Profit or loss on the year's working
			Rs.	Rs.	Rs.	Rs.
Hubli	1927-28	...	82,248	10,57,762	11,198	7,822
	1928-29	2,585	53,573	7,35,473	6,972	1,230
Gadag	1927-28	1,975	39,918	5,84,683	5,017	11,454
	1928-29	1,969	54,220	8,89,123	7,076	1,494
Haveri	1926-27	695	8,411	99,819	1,052	10
	1928-29	696	5,529	72,125	675	--185
Annigeri	1926-27	167	3,654	40,032	285	398
	1928-29	173	5,129	70,036	396	585
Dharwar	1926-27	374	4,149	44,984	510	--960
	not work- ing since	...	...	...	...	...
Bagalkot	1926-27	220	1,524	17,625	213	760
	1928-29	267	1,828	9,990	442	43
Bijapur	1927-28	151	8,052	1,15,016	2,169	504
	1928-29	172	9,484	1,26,525	2,361	451
Bail-hongal	1926-27	...	30,801	3,10,155	5,482	3,213

As has already been pointed out the only substantial societies are those at Hubli and Gadag and they have so far captured about 10 per cent of the business,

Future of Cotton Sale Societies: Some of the handicaps of the Sale Societies such as, want of loyalty of members, inadequate finance supplied by credit societies, loss in seed business, etc., have already been noticed. As things stand, credit societies do not exist in all villages and even where they do exist they do not provide adequate financial facilities. Apart from the help District Central Co-operative Banks can themselves give to the Credit and Sale Societies, it may also be suggested that Government should hand over a portion of its cash balances say, during the harvesting and marketing period, to well-conducted District Banks subject to suitable conditions in respect of payment, etc., or in the alternative, the District Branches of the Imperial Bank should be required to extend cash credit and other forms of accommodation to Central Co-operative Banks and Sale Societies.¹⁵ Another drawback of the Sale Societies is that they do not possess adequate godown facilities. Government should either itself construct warehouses and rent them to Sale Societies or advance loans to them at concession rates so as to enable them to build their own godowns. It is also necessary that Sale Societies should have their own gins and presses so that they will, to that extent, eliminate the high charges of ginning and pressing at private factories which buyers take into consideration while purchasing *kapas*. It would also be possible to sell ginned and pressed bales of cotton direct to Bombay millowners and exporters. Ginning factories maintained by Sale Societies at their headquarters as well as at various mofussil places would enable them to gin sample *kapas* for grading and would also obviate the need of moving cotton seed between the areas of cultivation and the

¹⁵ In this connection attention may be invited to the Egyptian scheme of loans on the security of cotton to assist the small producer, which was recently considered by the Indian Central Cotton Committee with a view to ascertaining its applicability to Indian conditions. The scheme is designed to be worked by Government in co-operation with Banks. See the *Minutes of the 19th Meeting of the Indian Central Cotton Committee* held on 16th—18th July, 1929.

headquarters of the societies. It is also necessary to investigate into the possibility of adopting the pooling system as in the case of the Gujerat Sale Societies. At present each member of the Sale Society obtains the particular price ruling on the day on which his own consignment is sold. This practice encourages speculation and opens the door to the competition of outside dealers. Pooling of prices and goods and the payment of the average price for the season may be found to be more profitable in the end. It may also be suggested that to increase the bargaining power of Sale Societies and to provide against the contingency of boycott of an isolated society, as also to establish direct connections with large buyers, it is necessary to organize a Federation of Sale Societies in the Bombay Karnatak with a Bombay agency as in the case of the Federation of Jute Sale Societies at Calcutta.

The Bombay Cotton Markets Act, passed in 1927, should be applied to the Bombay Karnatak. The regulation of open markets through market committees consisting of representatives of the cotton growers, the cotton trade and the local authority within whose jurisdiction the market is situated would ensure to the growers the benefits of better prices, accurate weights and the prevention of illegal deductions. The cotton trade would also be indirectly benefited. It is also desirable to explore the possibility of extending the scope of the Act so as to establish similar markets even for the disposal of other crops such as *jowar*, groundnut, wheat, etc.¹⁶ Another reform which is needed, not only for the smooth conduct of cotton marketing but also for that of other crops, is the standardisation of weights and measures in suitable local areas. For example, it would by no means be impracticable to standardise the units of weight current in the Hubli and Gadag cotton markets throughout the Bombay Karnatak. Cotton Sale Societies should be permitted to sell members' produce other

¹⁶ Jathar and Beri : *Indian Economics*, Volume I, p. 306.

than *kapas* say, groundnut, *jourar*, etc. In this matter the Irish model of the General Purposes Society would seem to be more suitable to Indian conditions than the Danish model of the specialised Society confining its operations to one specific product. The Indian cultivator is accustomed to sell all his produce through one *Dalal* or merchant and, there is also the further consideration that if different societies are organised for different products, there would be a paucity of efficient personnel. Moreover, the business of such a composite sale society would be more evenly spread throughout the year than that of a society dealing in one product. When, however, a Sale Society undertakes to sell the produce in some finished form, as for example, a Tobacco Sale Society manufacturing also cigars and cigarettes or an Oilseeds Society oil, specialisation in one kind of produce is both desirable and necessary.¹⁷ Lastly, as recommended by the Agricultural Commission (para 348) an expert marketing officer should be appointed to the staff of the Agricultural Department in this Presidency.¹⁸

II. OTHER FARM PRODUCTS

The limitations of space make anything like an adequate treatment of the marketing problems regarding the other farm products impossible. Some of the observations made above regarding cotton marketing also apply *mutatis mutandis* to other classes of agricultural produce as well. For example, the inability to hold up produce, dependence on middlemen, *Dalals* and mer-

¹⁷ *Paper on Co-operative Marketing of Farm Products* by C. B. Huli, Assistant Registrar of Co-operative Societies, Dharwar, read before the Fourteenth Provincial Co-operative Conference, 1925.

¹⁸ In this connection it may be mentioned that an intensive enquiry into certain typical villages in the Dharwar district has recently been set on foot by the Bombay Provincial Banking Enquiry Committee and a special investigating officer has been appointed for the purpose. The results of this enquiry are expected to be of considerable interest from the standpoint of the cultivator's position in respect of the marketing of his produce.

chants who levy a heavy toll for the services they render, ignorance of the cultivator regarding the trend of market prices, absence of regulated markets and of uniform weights and measures are some of the common failings of the marketing organisation of different classes of farm products. An attempt is made below to state the salient features regarding the marketing problems presented by some of the other crops such as groundnut, paddy, chilli, tobacco, arecanut, *jowar* and wheat.

(a) **Groundnut:** The romance of groundnut may here be briefly told. Groundnut is a crop recently introduced by the Agricultural Department in the Bombay Karnatak and its cultivation has rapidly increased during the last five years, especially in the transition tract (*Gadginad*) of the Dharwar and Belgaum districts where early monsoon rains favour it. The crop is becoming more and more popular with the cultivators every year due to the good prices and the ready sale it obtains in the markets. The increased cultivation under groundnut is, in fact, one of the most striking agricultural changes during recent years. It is a quickly maturing crop and can be successfully grown on poor *mal* lands and can be usually dovetailed into a suitable scheme of rotation. At times and in some places it is competing even with cotton in the black soil. A considerable measure of success has attended the efforts of the Agricultural Department to introduce a high-yielding and improved strain of the Spanish peanut, fresh seed being imported for the purpose from America five years ago. This is technically called Spanish Peanut No. 5. The selected strain is being distributed among the cultivators under a seed-multiplication scheme similar to that for cotton. In the Dharwar district, where the area under groundnut increased from 6,428 acres in 1923-24 to 62,297 in 1927-28, the various groundnut markets such as, Gadag, Haveri, Rannebennur, etc., received in the aggregate 17,500 tons of groundnut during the season of 1928-29. At present this produce is brought in gunny bags in a semi-dry condition to the market and sold in hot haste as the

cultivators fondly think that they get better prices if they sell groundnut in a semi-dry condition with mud attached to the shell. Of course, it is needless to add that the buyers keep a sufficient margin when fixing the price. This experience supports the contention that agricultural produce should be sold in some finished form prior to being exported from the primary market. The establishment of industries for this purpose will also offer employment in the rural areas during the slack season, apart from the advantage of increase to the grower. The Agricultural Department has been able to impress the more intelligent cultivators that it pays them to get their groundnut decorticated and sell the seed, and already a number of small decortivating machines have been introduced in groundnut areas. The Cotton Sale Societies at Haveri, Gadag, and Bailhongal have undertaken to sell groundnut raised by their members. As the area under the crop advances full-fledged Groundnut Sale Societies, with complete equipment to get the groundnut decorticated and the seed crushed, would certainly be found to be very profitable. At present groundnut is largely purchased by the exporting firms and the seed is exported from India.

(b) **Paddy:** In the *Mallad* (red-soil) tract, paddy is grown extensively, but since it is mostly a commodity of internal trade, the problems connected with it are not very comprehensive. It is necessary, however, that Paddy Sale Societies, equipped with rice-milling plant, adequate godown accommodation and a stock of pure seed, should be started in the rice-growing tracts. At present there is only one Paddy Sale Society at Alur (Dharwar) with a total membership of 204 and it sold 26,600 maunds (80 lbs. each) of rice valued at Rs. 72,397 in 1928-29. It is now being converted into a Sale Union of Societies.

(c) **Chilli:** Chilli is grown extensively in some four talukas of the Dharwar district and in this trade too, there are several intermediaries who make much profit at the cost of cultivators who suffer heavy loss by selling it in a semi-dry condition. The crop

is mostly consumed in the Karnatak and a part of it is exported to the Madras Presidency. There is only one Chilli Sale Society at Byadgi in the Dharwar district with a membership of 519 and it sold 5,277 maunds (80 lbs. each) of chillies valued at Rs. 39,640 in 1928-29.

(d) **Tobacco:** The cultivation of tobacco is comparatively more important in the Belgaum district than in other parts of the Bombay Karnatak. There is a Tobacco Sale Society at Nipani (Belgaum) which sold *Jarada* (Tobacco) valued at Rs. 34,453 in 1927-28. It is yet in a condition of infancy and is capable of further development.

(e) **Arecanut:** Arecanut is a money crop of considerable importance in the Kanara district. The existing marketing system is very defective as no attempt is made to grade the crop properly and to bring it to the market in a dry condition. Arecanut is exported to Bombay after providing for the local needs of the Bombay Karnatak. There are two Arecanut Sale Societies in the Kanara district, at Kumpta and Sirsi. The Kumpta Society has been very successful. It does all its business in cash and has now captured about one-fifth of the market. It had a membership of 269 and sold 9,199 maunds (80 lbs. each) valued at Rs. 2,16,620 in 1928-29. The Sale Society at Sirsi sells also pepper, jaggery and paddy and its total sales amounted to 4,837 maunds (80 lbs.) valued at Rs. 1,39,357 in 1928-29.

(f) **Jowar, Wheat, etc.:** Though the area under *jowar* is very extensive in the Bombay Karnatak no attempt has so far been made satisfactorily to solve its marketing problems. In the case of *jowar* and wheat the requisites of good marketing organisation, viz., the extension of the marketing period and area and control of the movement of the produce in regard to the point of consumption are woefully deficient. It is notorious that in the case of both these crops prices tumble down at the harvest season, unlike in the case of cotton whose price is determined by that of foreign cotton and comparatively accurate estimates of

outturn. Cultivators pour all their crops on to the market at the same time, while the prices rise again in the dull season when there is no harvest. It is very necessary therefore to organise Sale Societies so that the crop may be held up considerably and let upon the market when it is advantageous to the cultivator, and the grain may be sent to the market where the best prices at any moment can be obtained. Proper inspection, grading and packing as in America are other matters that require the careful attention on the part of Sale Societies.

Conclusion: From the above survey of the marketing organisation of agricultural produce in the Bombay Karnatak, it will be abundantly clear that the most hopeful solution of the difficulties experienced by the cultivators and buyers lies in the establishment of well-conducted and well-equipped Sale Societies and the creation of controlled markets. This is a matter of urgent national importance and merits all the care and thought that the Government and people could bestow upon it.

FINANCING AND FORCED SALE OF PRODUCE

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SUMMARY.

How far is it true to say that the agriculturists (in Madras) lose heavily by taking advances prior to harvest on condition of selling their crops to or through their creditors?

The net work of rural weekly fairs, facilitating the meeting of producers and consumers, without any financial obligation between themselves, may be said to reduce the chances for middlemen-moneylenders. But the fairs are neither universal, nor important everywhere; and there is little of wholesale trade, particularly in commercial crops, in these fairs—The Central Cotton Committee's recent investigations have revealed that the financial handicaps of growers were far too exaggerated and there is not much of combination of moneylending and trading. But the tracts selected were not all typical and the Committee itself could not accept all the conclusions—Holding of produce for better price by the producers is not uncommon in the case of food grains and it is of doubtful utility in the case of commercial crops—Madras has more of agriculturist-moneylenders who are not extortionate nor insist on sale of produce of debtors to themselves—The commission-shopkeepers in trade centres are increasingly approached by the ryots for advances and though there is an undertaking that produce shall be delivered after harvest, there is no stipulation for sale at less than market price. The rates of interest are fair; sale is commonly by auction. Profits are derived by a large turnover, and to some extent by certain market practices detrimental to the interests of growers. But the 'tied' farmers fare no worse than free farmers.—The cartmen-traders will move a large part of the produce from villages and some of them distribute funds, lent by commission-shopkeepers, at higher rates to producers or on condition

of the sale of produce by the latter at concession rates to themselves—Increase in the number of commission-shops, better communication between town and country and competition of the larger number of petty dealers tend to mitigate the hardships of all but the backward cultivators—Forward contracts are more common between big firms, exporting or manufacturing, and big bazaar dealers; but neither of these ordinarily finance the cultivators directly or indirectly—Other serious handicaps to co-operative or any orderly marketing merit our attention as well as any lack of organised and easy credit.

It is a common belief with co-operators and other well-wishers of agriculturists that in respect of marketing their produce, the latter are exploited by the merchant-moneylender. The Bania in the North and the Komati in the South are likened to the 'Gombeen-man' of Ireland, who is said to have combined in himself the three functions of moneylending, purchasing produce and vending some of the agricultural and domestic requirements of the cultivators. An attempt is made in this Paper to examine the widely held view that the purchaser or his agent by making advances prior to harvest binds or tempts the producer to deliver soon after harvest his produce at a rate profitable to himself but ruinous to the latter. Many of the following inferences are based on facts and opinions gathered in the course of an enquiry into conditions of marketing produce in several districts of the Madras Presidency.

Importance of Weekly Fairs: Let us first note the diametrically opposite impression that is likely to be conveyed by the Report of the Census in 1921, when special information was called for on the subject of rural markets all over India. From statements quoted from the Census Reports of several provinces,¹ one might be tempted to generalise as follows: Most of the trade in agricultural produce in India is carried on in the well-attended rural weekly fairs (known as *shandies* in Madras and *hats* in

¹ Indian Census Report, 1921, pp. 259—263.

North India) held within intervals of 5 to 10 miles over most parts of the country. The petty producer himself goes to sell in the fair what he does not need (or cannot afford to store up) for his consumption. He sells to consumers and for cash; or if he sells to some extent to petty dealers, these are an itinerant class of people with whom he can have no money dealings or any sort of 'forward contracts.' There is therefore little chance for exploitation of the producer by the moneylending trader.

While the existence of the net-work of weekly fairs should not be ignored in any study of agricultural marketing, it is possible to exaggerate their importance. They are, first of all, not so universal. They appear to be more common in the Southern and Eastern Provinces than in the Western and Northern. In Madras, *shandies* are far more important in the dry inland districts than in the deltaic rice-growing districts. They are a recent introduction in many of the Telugu districts. In several places they are neither big nor important and are chiefly meant for vegetables, leaves, condiments and fruits. There is some local and retail trade in staple foodstuffs, but the wholesale trade in the latter and in commercial crops is outside the *shandies*, though some of them serve also as collecting centres for all kinds of produce. For they are the resort of the very poor ryots with small lots of produce and the large number of landless labourers who receive harvesting wages in kind and are ready to sell, or barter, them for what they would fetch. In the case of groundnuts particularly it is possible for assiduous dealers seated in or near *shandies* to purchase a great proportion of the crop from wage-earners alone, as picking charges for groundnuts vary from 25 to 50 per cent of the crop.

It is not correct to hold that the weekly fairs attract only producers and consumers and that there is little scope for dealers. For even in the case of fresh produce like vegetables and fruits and leaves, in the *shandies* away from the producing centres, the sellers are seldom growers but are petty traders who collect

in one *shandy* and sell in another and go the round of *shandies* in the neighbourhood in search of suppliers in one and buyers in another. This much however can be said of the *shandy* system that even where it is important it does not encourage any kind of a contract between producers and dealers in consideration of any payment of advances by the latter to the former.

The Cotton Committee Investigations: We have recently a more authoritative refutation of the traditional notion of the dependence of the cotton cultivator on the trader-cum-moneylender, in the reports of eight investigations organised by the Indian Central Cotton Committee.² According to these reports, abuses connected with financing prevail to a much smaller extent than imagined. Taking all the eight tracts together, sowcars lend 65 per cent, landlords 15 per cent, co-operative societies 13 per cent, gin-owners 1·6 per cent, and petty merchants and traders only ·2 per cent of the amounts borrowed by growers. The borrowings though substantial are not excessive. The rates of interest are not high except in Sind. There is a justifiable preference for sale in the village itself, and the growers are right in shunning the market for its malpractices. Above all the cultivators except in Sind are not hampered by their borrowings in the disposal of their produce, either as regards the persons to whom or the time at which they may sell though they seem to feel a 'moral obligation' to sell to their lenders. The producers are able to, and do, hold cotton for considerable periods in expectation of higher prices. When they sell early, it is not due to financial pressure but to fear of falling prices and of loss by fire.

While Sind is the most unfortunate, Madras (N. & W.) seems to be the most favoured tract. The percentage of loans from sowcars is the least here—only 27·6 per cent, while landlords lend 56·8 per cent, gin-owners 10 per cent, and petty traders 3·8 per cent. Rates of interest are the lowest; 84 per cent

² General Report of Eight Investigations into the Finance and Marketing of Cultivators' Cotton.

of the loans carry less than 12 per cent interest; 24 per cent of the loans are charged less than 9½ per cent. No wonder the field for co-operative credit is narrow. No interest is charged on advances given on cotton stored in commission shops though in other tracts 9 to 12 per cent is charged. Again, the village prices are fair, sometimes even better than rates current in the market, due to the anxiety of the village-traders to fulfil their forward contracts within stipulated time. Only 4 per cent of the borrowers gave even a verbal undertaking to sell to the lenders who happened to be gin-owners.

This picture appears indeed too good to be true! This tract (N. & W.) in Madras is not typical of the Presidency. The average holding is 36 acres of land capable of growing cotton, *jowar* and groundnut in all but drought years, and 74 per cent of the growers have more than 15 acres each.³ Even as regards the other tracts, the Committee itself seems to discount the value of the reports in the prefatory statement and to explain away the apparent prosperity of growers by the unbroken series of good seasons they have had. It is averred that the rates of interest are nominal and that they do not reveal the total of the levies made by the money-lender who is often the agent of the bigger buyer who is the real financier. Attention is drawn to the state of co-operative credit as indicative of the low credit-worthiness of cultivators. Further enquiries may modify the optimistic inferences drawn in the reports, though there must be a large element of truth in them.

Holding Produce for Better Price: In the case of food grains, it is not all the produce that comes up for sale in the market, early or late. A good deal is stored up for consumption by all but the poor, though latterly a craving for finer stuff coming from a distance (e.g., craving for the Circars Rice in the Tamil Districts) tempts the disposal of all the crop. There is a disinclination, so far as the surplus is concerned, to wait for a rise in price as it

³ Report on the Financing and Marketing of Cotton in Madras (Northern and Western tracts), p. 7.

involves risks of loss, especially if account is taken of the dryage, wastage, and interest for the period of waiting. There is always a rise in price, but not always enough to guarantee against such losses. But affluent landlords are prepared to take risks and even buy up the produce of the smaller ryots to whom they might have advanced money and so are in a position to dictate terms to petty purchasers. The Imperial Bank has been for some time past offering facilities to producers as well as traders to take loan on pledge of produce. So far traders have availed themselves of them more than producers who have been partly hindered by lack of proper godowns and partly by considerations of false prestige. This prejudice is breaking down, and godowns are also coming into vogue even outside the taluk headquarters and market centres. We may look to an expansion of this line of business in co-operative and other joint stock banks as well.

There is no question of holding perishable crops; nor is any attempt made to preserve and store the surplus, for future, gradual, sale. Growers are except in certain seasons at the mercy of purchasers.

In the case of commercial (export or money) crops like copra and groundnut and turmeric and jaggery, it is not the practice to hold produce for later sale; for many of the crops undergo rapid deterioration, or lose in bulk and weight; the fluctuations in prices are even greater than in the case of food grains and the demand by shippers in certain tracts ceases after the season. Buyers from outside who assemble for the season disperse and competition goes down to the detriment of growers. Special storage facilities and preservation and care are beyond the capacity of most producers who are unorganised.

Agriculturist-Moneylenders: A striking feature of money-lending in the Madras Presidency (noted by Sir F. Nicholson and the late Mr. S. R. Ayyangar and recently by the Cotton Committee investigators) is the practice of the smaller ryots to borrow from their bigger fellows who do not charge unconscionably higher

rates of interest unlike the moneylenders in other parts of India belonging to a different class and creed and often to an alien tract. There is no insistence of the sale of produce to the lenders, though the latter might keep a watchful eye on the sale, with a view to recover their dues. Few lenders are so unfair as to compel sale to themselves if a good offer is made by an outsider trader; and often the latter pays the local lender and has the produce sold to himself. The same thing happens in the case of tenants who have agreed to pay cash rents and received advances from landlords for cultivation. There is no doubt hurried sale, but it is not peculiar to the crops of borrowers.

Cartmen-Traders: The most ubiquitous of traders in rural areas are the persons who own (or hire) carts and pairs of bullocks and invest a little of their own, and more of borrowed, capital in business. They are of various grades and not all of them advance loans to producers. There are recent recruits to the trade from among ryots themselves. Growers unable or unwilling to go to markets themselves entrust the cartman-trader with the sale of the produce, and receive the sale proceeds minus commission and cart hire when the trader returns. The traders with a larger working capital, either their own or borrowed from commission-shop-keepers in market centres, buy outright the produce in the village and pay down the entire price before they remove the produce. Some are able to lend before the harvest, and a few early in the cultivation season, in which case they charge interest, more in terms of produce than of cash. Conditions are stipulated, though seldom written agreements are drawn up, that produce shall be delivered at a little less than the ruling price for free produce. Interest often takes the shape of a definite additional quantity of produce for every rupee lent. This system is, however, more common in the case of commercial crops than in that of food grains. With regard to the latter, what are commonly known as advances are not for long periods but are given just after the harvest, when the price is settled, though the produce is left in charge

of sellers and is taken delivery of after some weeks or a few months. They are more in the nature of earnest-money than loans. There is no doubt scope for exploitation, but it is kept in check by the increasing competition among the dealers themselves, who are no longer confined to a hereditary caste of traders. The margins (at any rate openly claimed) are pulled down by the invasion of other classes.

Commission Mandis: The commission shops or *Tharagu mandis* in market centres play an increasingly important part in the disposal of all kinds of produce, except perishables. A good deal of produce is still brought to these shops by the petty dealers; but they are attracting more and more the producers themselves in the villages in the neighbourhood and in good communication by road. The produce that is brought is quickly disposed of at these *mandis* to buyers for export or to merchants who stock and gradually distribute to retail sellers. The most common method of sale is by auction at which are present the buyers or their agents. If the higher price bid is not agreeable to the producer or dealer who brings the produce for sale, the produce can be held over for sale on a later day. An 'advance' to the extent of three-fourths of the probable value of the produce held may be had from the *mandi*-man. Only godown rent will have to be paid, and if the advance be not returned within a month, interest at 12 per cent will be charged. Some charge interest even for a shorter period. When the sale is effected a commission varying with the produce and some other customary charges in the market will have to be paid.

The commission-shop-keeper has to be a financier if he is to be a big dealer in produce. It is common for producers who are old customers to take advances earlier, generally just before the harvest. But more of the *mandi*man's money is in the hands of petty dealers who distribute it in small amounts to producers in the villages at rates ranging from 12 to 18 per cent or stipulating for an additional quantity of produce. But the *mandi*man, when

he lends to the producer directly, does not insist on sale at less than market price but only wants the produce to be sold through him for commission. The rate of interest charged by the *mandi*-man to old producer-customers as well as to dealers is 9 to 12 per cent, which is very reasonable in view of the rate he has himself to pay to his creditors, the Multani, Chetti or Brahmin Bankers or Hundi Merchants, whose lending rates are slightly higher than the Imperial Bank's. But their readiness and elasticity in dealings account for their popularity while the rigidity of the Imperial and Joint Stock Banks repels them. The risks in lending to ryots and petty dealers on mere promotes and on personal security are not inconsiderable. They have also to extend short credit—for a week or so—to buyers. Producers who have had dealings with *mandimen* directly have little complaints against them. It is only when they do not fulfil their part of the contract—and for example divert their crops elsewhere—that trouble arises. Overdues are charged at 18 to 24 per cent and with some justification too, as the shopkeeper has to earn all his profits by a quick and large turnover in a short season. There is no legal obligation on the part of the receiver of advances to sell his produce only to his creditor, but the 'moral obligation' is a natural and universal feeling.

Forward Contracts with Firms: Forward Contract is the rule between big firms, exporting or manufacturing, and big bazaar merchants who agree to buy for them and deliver a definite quantity and quality of produce at a given price and place and before a fixed date. The buyers are generally men of capital but they also borrow from big bankers. Sometimes they send their own men into the interior to purchase produce but more commonly depend on the commission shops, which extend credit to them for a week. The firms, exporting or manufacturing, with whom they have contracted do not ordinarily help them with any advances, while, on the other hand, they are required to make deposits. Cash advances by firms are as a rule discredited and are considered demora-

lising by reputed firms.⁴ There is no need to finance when competition between buying agents is so great that there is a scramble for business with the big firm. But almost the entire value of the produce is sent soon after the railway or steamer receipt reaches the Head Office. The *mandiman* has to wait for a week or more to be paid. In exceptional cases money is advanced even by manufacturing firms of repute with a view to be sure of getting raw material for the mills. For example, Messrs. Parry & Co. used to finance cultivators of sugarcane to feed the mills at Nellikuppam.

Exploitation of Backward Classes: Even now in the Krishna and Godavari districts they advance through the *Dubash* amounts to 'agreemented dealers' who contract to deliver jaggery by a certain time and who in turn disburse the amounts to various tappers of palmyra trees on terms which are extortionate. There are in all tracts some depressed classes of producers who by their ignorance as well as their imprudence easily lend themselves to exploitation. The most notable instances in Madras are, besides the tappers mentioned above and in Tinnevely, the Hill tribes of the Agency Tracts exploited by the Komatis! the Badagas of Nilgiris exploited by the Iubbai merchants; the pepper-growers of Malabar exploited by Moplah traders. It is noteworthy that in all such cases the lenders are not of the same creed or caste as the borrowers.

Credit extended by Producers: At the other extreme are cases of producers who not merely do not borrow from prospective buyers of their produce but also extend credit to them. Sale on credit of plantains in the Trichinopoly district to local agents of firms in Madras is quite normal. Money is received a week or more after, and sometimes long after the fruits are sold. Plantains being perishable, producers are in some slack seasons put to so much trouble and anxiety as regards disposal of their produce

⁴ Indian Cotton Committee (1918) Evidence Sir Cl. Simpson (5487) & Royal Commission on Agriculture. Evidence, Vol. X, Steiner.

that even price is not always fixed before the sale to the local agent, but depends upon what the latter and the Madras firms are pleased to pay.

Another curious practice in the City of Madras and even in mofussil towns is for owners of buffaloes, whose milk is not so much in demand for domestic consumption as cow's milk but has to depend on the demand of the coffee hotels and tea clubs, to finance the keepers of such hotels and indeed help start such a concern on condition that the latter should purchase all the milk brought for sale. This help is given by the milkman, though he may himself be in deep debt to moneylenders for the purchase of his animals and their maintenance.

But the suffering is not all on one side. There are consumers in every place who are prepared to advance sums to milkmen for a steady supply of pure ghee and other milk products for domestic consumption, demanding no interest on the advance. The most common experience in such cases is that the producers, whose supply of such goods is usually below the commitments they make to one or more creditors, fall in arrears and are a source of vexation to lenders, with whose woes we may well sympathise.

Advances not Sought but Thrust: It is not always the producers that seek advances. It is often the temptation of money dangled before them than their need that accounts for hasty sale. The binding nature of forward contracts which big dealers enter into with exporting or manufacturing firms impels them to assure themselves of a definite supply fairly in advance of due date. Millers of all kinds are anxious to purchase raw materials to keep their plants going for as long a time as possible in the year, and their agents scour the country with cash in the hands. Too many rice mills in Tanjore and Nellore districts and too many cotton gins in Guntur and Ceded Districts have brought about competition for produce and the temptation to sell it in advance at a fair price is irresistible.

It is not denied that there is exploitation where the oppor-

tunities are great. There are in every village petty holders of land who can never make both ends meet and whom none but a missionary agency can perhaps rescue. Such ryots do come into the clutches of moneylenders—whether they are merchants or not. But though they constitute in number a large proportion of the ryot population, their surplus produce available for sale is not considerable especially in respect of food grains which occupy $\frac{5}{7}$ ths of the total area cultivated. It is not the reform of the marketing-credit system alone that is likely to redeem them.

‘Tied’ Farmers Fare no Worse than Free Farmers: As regards the average ryots, it cannot be asserted that credit is now got on ruinous terms and that from the trades-people. Wherever they have had access to the commission shops in market centres, they have had no lack of credit. The profits of commission-shopkeepers are earned not so much by lending money as by attracting a large number of clients with a view to a large turnover. Though the brokerage is small the total profits swell, by the authorised and unauthorised indirect earnings by way of samples, deductions, overweights, cesses, etc. But in all these respects the ‘tied’ farmers seem to fare no worse than the free farmers; for the latter also submit themselves to all such customary outgoings. There is generally not much to choose between one commission-shopkeeper and another, though the unscrupulous who rob the weak and the helpless are few. Even if the victims to the existing credit systems were to be relieved by the grant of co-operative credit, there would be other problems to solve before co-operative marketing can be successful and bring complete relief to producers. It is noteworthy that in the few well-worked Loan and Sale Societies in Madras, there is not so much demand for loan as for help in sale.

Other Handicaps to Orderly Marketing and Co-operative Sale:

To lay all the emphasis on the exploitation of the moneylending merchant, which is not proved, is to distract our attention from the other serious handicaps to co-operative sale, or any kind of

‘orderly marketing’ among which may be mentioned (apart from the difficulties of management) the following: the lack of transport facilities which inconveniences all but those who have specialised in surmounting the difficulties and therefore captured the trade, the chaos of weights and measures which is the curse of the country-side but which is the forte of the shrewd trader, the fear of a falling market and the lack of any agency to forecast in intelligible terms to the cultivators the trend of probable prices in world markets, the paucity of proper storage facilities in the villages and of warehouses in market centres on the basis of which bank credit will be easily forthcoming, and the absence of any desire on the part of the grower to achieve high quality and uniformity in production or to have the produce well-graded before sale.

Above all the want of a fervent faith in joint enterprise on the part of many farmers and the members’ readiness to deliver produce into alternative channels of trade account for meagre success. Without a guaranteed supply by the farmers of their surplus produce by means of a supply-contract or otherwise, no co-operative sale can be built up; there cannot be enough margin to cover overhead expenses; nor sufficient basis for credit. There can be no regulation or ‘smoothing out’ of supply according to demand, which is the aim of all ‘orderly marketing.’ There can be neither the power for collective bargaining nor the power to resist competition by those established in the trade. Without the assurance of members’ loyalty to society even in times of adversity, at least in the early stages, we shall be only playing with the idea of co-operative trade.

CO-OPERATIVE MILK SOCIETIES

N. N. BASU,

*Superintendent, Co-operative Milk Societies,
Bengal.*

I am grateful to you for your kind invitation which I gladly accepted not only because I am directly associated with some of the successful co-operative milk societies in Bengal but also because I have a living and abiding faith in the co-operative milk movement.

Since the growth of industrialism and the consequent shifting of the centres of trade into large cities, the problem of marketing of milk from producing areas to consuming areas has been looming large before all civilised nations. In ancient times the cow supplied the needs of her owner's and his neighbour's family and milk was consumed close to the centre of production. But a wide gulf has now sprung up between the farming community and the mass of consumers, and dairying has consequently been pushed farther away from the markets. A city teeming with millions has to draw its daily supply of milk far and near and naturally the process of marketing has created a chain of intermediaries between the producers at one end and the consumers at the other. In a country like India where small producers are proverbially poor, ignorant and conservative in their methods, it is no wonder that these middlemen have reduced the farmers to a state of absolute dependence and helplessness.

In a country of small holdings the farmers can produce only a small quantity of milk. They cannot, therefore, sell their produce to the best market on their own account by transporting it to the city. Moreover milk is the most perishable of all farm produce and to convert it into a non-perishable product of the highest market value requires capital, skill and business capacity

which the individual cow-owner does not possess. He must, therefore, adopt the method of the rest of the world and organise or be organised on co-operative lines if he is to obtain for himself the full value for his milk.

As you are aware, a striking development of dairy business with the actual farmers has been effected in other countries, such as, Denmark, Holland, Ireland, etc., through the agency of co-operative societies brought into being under the stress of necessity. The working of these societies for several decades have pushed out the proprietary creameries or milk-handling plants with the result that they are practically unknown today in those countries. There the milk-producers, organised co-operatively themselves manufacture, grade and sell milk and milk products. In Calcutta a Co-operative Milk Societies' Union has been established with a view to achieving similar results by working on similar lines. It is a federation of primary societies composed of *bona fide* milk producers and operating within a radius of 50 miles from Calcutta, each member-society generally covering a village and forming a unit of organisation. These societies are linked up ordinarily in groups of six units. At each unit cows are milched under proper sanitary conditions and the milk is transported to the collecting centre. There the milk is received in sterilised cans, measured, its general condition is carefully tested and lactometer reading recorded by trusted officers of the Union. The milk is then despatched under proper supervision to the Milk Union in Calcutta, which, after Pasteurization, distributes it to the consumers through its salaried staff or agencies by motor or cycle lorries or hand carts. The cows and the process of milking, etc., are under the direct supervision of two experienced and expert Veterinary Surgeons.

104 societies were affiliated to the Union on the 30th June last. The working capital on the date was Rs. 2,80,000. The Union began in 1919 with a supply of half a maund of milk daily to its customers. The supply has now increased to 150 maunds

or 12,000 lbs. of milk a day. The sale proceeds of milk last year, amounted to Rs. 6,08,000. The Union suffered a loss of Rs. 5,000 in the first year of its working. The losses have been completely wiped out and the Union has, year after year, been gradually increasing its profits so that last year it earned a net profit of Rs. 26,000. Nor has the Union sacrificed the soundness of its financial position to the progressive increase of its profits. For, the Union has built up, out of its profits, a reserve and other special funds which today exceed Rs. 80,000 on which it can safely rely in lean years. It annually spends, out of its profits, Rs. 1,000 in aid of schools, where the children of members generally receive initiation into the three R's and a grant of Rs. 800 is also annually made for the upkeep of cows and a dispensary. It also contributes liberally towards welfare work among the milk producers. It has up-to-date sunk 25 tube-wells and distributed 20 stud bulls, organised four cattle-breeding societies and encouraged the cultivation of fodder crops by free distribution of seeds.

Till 1926, the Union used to boil a portion of the milk received from its affiliated societies and to sell the boiled and raw milk to its customers. The method was undoubtedly crude and unscientific. The Union had therefore to withstand innumerable difficulties. In order to inaugurate a true and scientific system of milk supply and milk handling a model milk factory was set up in the centre of the metropolis after the designs furnished by the Imperial Dairy Expert to the Government of India and fully equipped with the latest milk Pasteurizing, bottling, cold storage and bottle-washing plants. The milk now sold is filtered on arrival and then Pasteurized by heating to 145°F, holding it at that temperature for 35 minutes in an automatic retarding tank and cooling to 45°F before bottling. The entire process is automatic and at none of the stages is the milk touched by the hand. To registered customers milk is sold in sealed bottles. Each parcel of milk sent on or out to or from the central factory is carefully

tested by experts for fat and solids not fat and periodical tests are also carefully undertaken of bacterial counts.

The success of the Calcutta Milk Union has led to the foundation of 5 more Milk Unions in Bengal, notable among which is the Darjeeling Milk Union, which is for the moment primarily a Creamery Society. The Union is putting up a dairy factory working on the gravitation system, which will be the first of its kind in India.

The working of the Calcutta Milk Societies Union clearly demonstrates that for a tropical country, where bacterial contamination is more general and more dangerous from a pathogenic point of view than it is in temperate climates, Pasteurization on the modern retarding system should be the sheet-anchor of milk distribution. To advocate the selling of clean milk direct from the cow so much recommended today in Europe and in America is for the moment merely a counsel of perfection, so far as India is concerned, firstly, because of the septic condition of every source of contamination to which milk is exposed and secondly by reason of the illiteracy of the farmers resulting in a failure of the true conception of the meaning of cleanliness and of the potency of living dirt for working evil.

The tropical condition prevailing in most parts of India make the long distance transport of fresh milk difficult. But it is not altogether an impossibility. Under proper safeguards especially in treatment and conveyance, such as with refrigeration vans on Railways, milk may be transported from a far greater distance and in a much better condition than what we may expect to get in front of our house from a wandering cow.

Experiments made in India in railing milk from long distances conclusively demonstrate that Pasteurized milk (i.e., milk heated to 145°F, held at that temperature for 35 minutes and then cooled instantaneously to 45°F) is superior in keeping and transporting efficiency to every other system of treating milk. Milk so treated and stored in insulated cans can stand a journey of 18

hours in an ordinary wagon in the hottest season in India and delivered fit for human consumption.

The results so far achieved by the co-operative milk institutions fully establish the two main facts that (1) co-operative system is by far the best means of providing a regular and sufficient supply of clean and pure milk in cities at a reasonable price, and (2) co-operative organisations are the most suitable agencies for improving the quality and quantity of milk by training and initiating the producers in improved methods of production by bringing out their latent advantages and benefits and providing the necessary assistance and seasonal finance which would lead to increased profit.

By co-operative system we have actually increased the productivity of our members. When we began, the average output was about 5 seer per member. The daily supply has now increased to about 12 seers per member. In other words by bringing them into co-operative societies their supply of milk has increased by about 70 per cent. Now, how has this been accomplished? By offering to the cow-owner all the profits of the industry which had hitherto been appropriated by the middlemen aroused the interest of the producer and enthused them in their business. In any case, those who had one cow, found it worth while to keep two; and those that had two had likewise increased them to three. It is remarkable that as in western countries such as in Denmark, Holland and Sweden, where enormous progress in the improvement of cattle has been made, the organisation of the dairy industry on co-operative lines as in Bengal also has preceded the improvement of cattle. Now members maintain 20 stud bulls for the improvement of their cattle.

The possibilities in this direction are indeed vast and immense but the difficulties are equally great and many. In the first place, we cry not so much for money as for men. It is very difficult to find the right type of officer who combines business sagacity and driving power with expert technical knowledge and

skill and who really feels for his less fortunate brethren. Secondly, it is to keep the supply regular throughout the year. How to make up the deficiencies in the tight season and how to dispose of to the best advantage, the surplus in slack season are our greatest problem. Next is the difficulty of transport and mode of conveyance of milk. No doubt the Railways can help considerably in this direction both as regards the reduction of rates as also providing better facilities for transport. It will interest others to know that New Zealand butter is competing favourably in the Calcutta hotels. The difficulty of preserving milk in tropical countries especially during summer is also great. No doubt we have taken up Pasteurization of milk following the practice in western countries but I am yet to be convinced that this is the only and the best method. Research work with tropical milk may be undertaken in this direction.

Lastly it may be stated that as in temperate climates, the problem of transport and distribution of milk in tropical climates, such as prevailing in India is primarily one of bacterial control with this difference that in India a marked degree of vigilance to prevent contamination and of temperature control to prevent development of bacteria far ahead of the standards of temperate zones is required. Making allowances for this difference our experience is that we of the Orient must largely follow the lines of Western progress in this great National question of city milk supply.

I may conclude by saying that the greatest force in the attainment of the improved milk supply however, rests in public opinion. It is for the consumers in general and the leaders of the community in particular to decide this problem of supply of pure milk. It is to the co-operation of the dealers and farmers organised on a co-operative basis that we must look for an absolutely pure milk supply and behind all this must be a public appreciation of good milk.

DEVELOPMENT FINANCE

BY

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One of the greatest problems confronting governments, whether local, provincial or imperial, in India, is the question of finding money for nation-building activities. There is no lack of schemes of this character. Every minister, every chairman of a district board or a municipality and every finance member has a plan in his heart which he thinks will do good to this unfortunate country. Behind all these plans and projects, there is the feeling that something must be done to increase the national dividend of this land so that its enormous population of 320 millions may be maintained on a decent level of comfort. The expenditure required for this development is enormous since we have to make a good deal of leeway. Education, sanitation, communications and industries seem to be in a primitive condition. The progress in different provinces since the Reforms has been extremely uneven. Speaking of Bihar and Orissa—the province with which I am connected—its expenditure on the primary and secondary education of 34 million inhabitants amounts to Rs. 47,00,000 against the 183 lakhs of Bombay for a population of 19 millions and the 144 lakhs of Madras for a population of 42 millions. The same province provides 97 beds per million in

* We desire to express our very sincere regrets that due to some mistake this Paper never reached us. We have, however, much pleasure in printing it in this issue.—*Ed.*

public and private-aided hospitals against 183 in Bombay, 120 in Bengal, 125 in the U.P. and 155 in the C.P. So that leaving aside the question of approximating to Western standards, large sums of money would be necessary to raise some provinces to the existing Bombay standard of development, which speaking absolutely, we all know is not very high. The Bombay standard is maintained by a higher rate of taxation—the highest in the whole of India—which will be regarded as intolerable in the other parts of the country. Per head, Bombay pays the highest land revenue, the highest income-tax and the largest amount of excise duties. The total taxation, imperial and provincial, per head of population in Bombay is Rs. 20.51 while Bihar and Orissa pays only 1.74 which is the lowest in the whole of India. But the latter province has also the lowest standard of development and therefore it would be called upon to spend more in the near future. It has been estimated that one crore alone will have to be spent on primary education if Bihar and Orissa enforces a national minimum of education. Proportionate increases will have to be made under every other head. If similar expenditure is incurred in every other backward province, and all the provinces try to approximate to the Western standards of development, which is our national goal, expenditure will have to be raised far above the present level. An additional expenditure of not less than a hundred crores will be necessary if a modest programme of military, educational, agricultural, commercial and industrial development is carried out for the whole of India in the near future. This is by no means an over-estimate when we remember what other nations spend on similar objects. The single state of New York spends more on education than the whole of India, and London alone spends on its lunatic asylums more than the total revenue of Bihar and Orissa. This additional money can be obtained only in three ways—by (1) retrenchment, (2) operation of public enterprises, (3) taxation.

Of these, retrenchment holds pride of place both owing to

its intrinsic importance and the large place it has occupied in the national discussion of financial questions. It is universally agreed that our national administration is costly and that we could do with less expenditure under this head. But it is doubtful whether retrenchment, however desirable in itself, is practicable on a large scale. No government except a revolutionary one, can start with a clean state and repudiate existing obligations or dismiss its permanent staff. The services in India, European or Indian, have such close affiliations in the Parliament and the Legislative Councils that these bodies will see to it that their abstract sentiment in favour of economy is not translated into practice. It is justly said that the best way of winning popularity is to advocate retrenchment and the quickest way of losing it is to carry it out. That is one reason why no striking results have been obtained as a result of the appointment of retrenchment committees in all the provinces and at the centre. One or two concrete illustrations from my experience will explain the difficulties of retrenchment better. The post of the paid Vice-Chancellor of the Patna University held by an I. E. S. officer was retrenched but as the I. E. S. officer had to be provided for somewhere, he reverted to his substantive post carrying about the same emoluments. All officers acting in the chain of his vacancy were moved back until an unfortunate teacher officiating on a small pittance was thrown out of employment. That was the net saving to the public exchequer. In other departments only chaprasies were thrown out and these infuriated functionaries ensured the defeat at the next election of the member who had moved the motion for retrenchment. There is no doubt however that given an honest will some retrenchment can be made without serious loss of efficiency; but the amount involved would be comparatively so small that it would hardly touch the fringe of our vast problem. If every European were replaced by an Indian and the salary of every Indian above Rs. 1,000 were progressively reduced, the saving effected would not exceed 65 lakhs a year. Salaries are however rarely reduced in this

manner. They are either reduced by the slow operation of time or by the rise in the level of prices. Even if savings can be effected in this way, they are likely to be absorbed by increases in other directions, notably in the improvement of prospects of low-paid functionaries like policemen, clerks and village teachers. Decreases in military expenditure may be offset by increase under air and naval forces. Thus retrenchment with a view to provide funds for development expenditure may be a dream of the future but is not a reality of the present.

The second method which has been suggested is the operation of public undertakings and monopolies. In the central and provincial sphere this is being done on a considerable scale as compared with other countries. With the exception of Russia perhaps, there is no other country in the world which resorts so much to socialistic action. The central government operates the railways, telegraphs, telephones and the salt and opium monopolies, while the provincial governments own lands and buildings, forests and irrigation works. Large revenues are obtained under these heads which may be increased further by widening the sphere of state action. It has been proposed to carry on shipping, insurance and banking as state enterprises and secure a monopoly revenue from tobacco. We are not concerned here with the relative merits of state and private enterprise as methods of production; we are only interested in their merits as sources of revenue to the state. It is an open question whether it will not be better in the long run for the state to leave industrial and commercial activities in private hands and derive an increasing revenue from them by heavy taxation, than to engage directly in them and face all the incidental risks of inefficiency, corruption, waste and mismanagement. Even if state management were efficient and free from political influence, it is doubtful whether the profits derived from it would exceed the yield from the taxable surplus of private business. No public monopoly would be allowed to make as large profits as private companies, and excess

beyond a certain limit is bound to be dissipated in wasteful promotions and extravagant concessions. It must also be remembered that to the extent that the sphere of state action is widened, the taxable surplus of the population decreases, so that it is clear that revenue from public enterprises can be obtained to a large extent only by sacrificing the yield of taxes, notably those on incomes and corporations. It is therefore possible that the total national income, instead of increasing, may diminish. This has been the case in Russia. It is not clear that our own public enterprises, notably in forests and public buildings, have been efficiently managed and it is doubtful whether in private hands they would not have yielded a larger revenue. The case of India however is peculiar. Many undertakings are operated by foreigners and large profits leave the country for good for which no direct equivalent is obtained. It is next to impossible for private enterprise to compete against these foreign monopolies. In such cases public enterprise as having the best chance of success should obviously be preferred. In India, banking, insurance and shipping are suitable spheres in which public enterprise may operate with advantage because the business in these fields is of a routine character and lends itself to management by the state. It will however be doubtful whether, with the possible exception of insurance which has been tried with success in Italy, a large revenue will be obtained in this way in the immediate future. The experience of the U.S.A. in the matter of shipping has not been encouraging. There is however no doubt that the tobacco monopoly will yield a large revenue which has been estimated to be about 10 crores. This, along with any possible increase of revenue by the operation of public enterprises which in the nature of things must be small in the beginning, does not carry us very far in meeting the demand for development expenditure.

The third possible source is further taxation. That at once brings us to a consideration of the question of the taxable capacity of India. Sir Josiah Stamp in his work on "Wealth and Taxable

Capacity " has pointed out that the limit of taxable capacity is not an absolute or fixed figure but depends on what the taxation is used for, on the spirit and national psychology of the people taxed, which may be influenced by patriotism or sentiment, on the way the taxation is raised, both as to the method adopted and the rate at which the increase is laid on and on the distribution of wealth. Its rate of increase is greater than the rate of increase of wealth, and it shrinks more rapidly than wealth diminishes. The vast majority of the people of India live on the margin of subsistence, far below the level of efficiency. Most of them are deeply in debt, so that it may justly be said that their taxable capacity is a minus quantity. Again as the taxable capacity diminishes more rapidly than wealth diminishes and as there are very few wealthy men in India (only 5 lakhs have an average annual income of Rs. 5,000 or more), the surplus available for taxation in the form of money is not very great. For this reason, instead of increasing taxation, reformers have proposed that certain taxes, which press heavily on the masses to the point of affecting their efficiency, should be reduced, if not abolished altogether. The salt tax and the land revenue are instances in point and have been the subject of agitation extending over a number of years. On the other hand excise revenue has been proposed to be abolished in the interests of social policy. Customs duties press heavily on the consumers, handicap trade and industry and their recent increase to 47 crores is already resented by a large body of free-traders. The surcharges levied by the Indian States do not make things easier for those who live within their borders. Judicial stamp duties have already made justice dear in some provinces and taxes on transactions impede the circulation of wealth. Under the circumstances, the task of the reformer out to find fresh resources is not easy. It is not surprising that while the Taxation Committee suggested reductions in certain taxes and transfer of others to local bodies, it could not suggest fresh sources beyond steepening the

grades of income-tax, the general extension of probate duties, the taxation of tobacco, agricultural incomes, patent medicines, aerated waters and stock exchange transactions, the levying of export duties on lac, oil-seeds, bone and other manures and raising the excise on foreign liquors and on country spirits in certain provinces. We have already considered the desirability of levying the tobacco taxes under the heading of public monopolies. The increased yield from taxes on agricultural and non-agricultural incomes and from succession duties will no doubt be a valuable addition, but making allowances for the reductions proposed by the Taxation Committee, the net addition to the national revenue is so small as a result of these proposed changes, that even the Committee was ashamed to express in figures the financial effects of their proposals, though they were required to do so by their terms of reference. It is doubtful if more than ten crores can be obtained under all these heads.

This does not carry us very far to our ideal of finding an additional revenue of Rs. 100 crores for our development. It would appear that the resources from direct taxes which are so popular with economists in India are strictly limited and cannot be indefinitely increased. In the nature of things they cannot but be so; for direct taxation implies the existence of a measurable surplus over and above the bare cost of subsistence a share of which is available for the purposes of the state. Where such a surplus does not exist or where it is too small to be directly measured, the state can only take its share either by indirect taxation or by trenching directly on a civilized standard of comfort. The salt tax and octroi, customs and excise duties, however inequitable in incidence and unsound in theory they may be, are attempts to collect through the medium of price the small drops of taxable surplus which cannot otherwise be collected into the reservoirs of the state. I have no doubt that in some cases they have the effect of imperceptibly lowering the standard of comfort but as long as our need of money for our development under

present circumstances continues, I fail to see how we can dispense with or even reduce them. The importance of indirect taxation in our tax system is increasing, instead of diminishing, as is evident from the fact that the percentage of land revenue to total tax revenue dropped from 53.15 to 20.75, from 1884 to 1924, while that of customs increased from 2.98 to 24.30 in the same period. The percentage of local taxation which contains such important taxes as octroi, tolls, etc., increased from 8.01 to 21.70. Our anxiety however is whether these striking increases would meet our growing wants. The chances are that they will not and it is therefore imperative to find fresh sources or try new methods to tide over the transition period when our development expenditure will not yield an immediate return in the shape of improved taxable capacity.

In our discussion so far, we have assumed that a tax is a contribution paid in the form of money and that taxable capacity is measured in terms of money. Whatever be the differences in the estimates of our national income, there is a general agreement that in this form our taxable capacity is extremely low. But, as Professor Pegou says, public finance does not really deal with money but with the goods and services which money represents. If, instead of money, services are exacted, they may serve the purpose of the state equally well. Taxes have not always been collected in money. Throughout long periods of history, they have been paid in kind, in many cases, in the shape of services. Before the money economy was established, rents and taxes were paid partly in kind and partly in labour. The feudal tenure of land was essentially a service tenure. The higher classes rendered service in arms while the lower classes rendered it in the field. The ancient histories of Orissa and Southern India are full of references to this system of paying the state in services instead of in money. The construction of the great temples, irrigation works and the great public works of antiquity, was carried out in this way by a general levy of labour. No difficulty

seems to have been felt in imposing this levy because the object of expenditure was regarded as laudable or beneficial to the people concerned and because it was a recognised method of national taxation. Taxable capacity depends on the object of expenditure and the psychology of the people. Abuses of the system survive in some of the Indian States in the form of 'begar' and 'bethi' and it is unpopular because no subsistence allowance is paid for work done, the underlings exercise great oppression, and above all the system is directed to ends with which the people have no sympathy. The system is however capable of yielding excellent results under suitable safeguards such as those provided by modern democracies in the shape of popular vote, popular ends and popular control through the press and platform. With these provisions, the system works in the rich and civilized countries of the present day, in the shape of compulsory military service. In the last war it was very greatly developed in all belligerent countries. Compulsory military service was as a result of changed circumstances expanded into compulsory national service, with the result, that every citizen in France, England, Germany and Italy contributed his quota to the prosecution of war. As a result of these experiences, a new science called war economics has grown up and forms a subject of study in the Cambridge University. On the whole compulsory service was cheerfully rendered as the object—the defence of the fatherland—commended itself to the citizens of Europe. The question may therefore be justly asked if compulsory service at much less than normal competitive rates, with the risk of life, can be exacted for the purpose of destroying life and property without serious difficulty, why it cannot be exacted for the purpose of development having for its object the saving of human life and misery. Sometimes this is the only measure left to a defeated and impoverished nation. Hard work alone can repair the ravages of war, disease and ignorance; and the state should lay down policies and create the necessary machinery and

conditions so that this work may be forthcoming. The vicious circle of low taxable capacity leading to insufficient expenditure on development and consequently a scanty national income and hence less taxation, must be broken somewhere by a supreme effort, if ordinary means do not suffice. The example of post-war Germany is an inspiration in this matter. Bulgaria having lost two wars, has perforce continued the system of compulsory national service for railway construction even after the war, with results which are reported to be satisfactory. If money payments are not forthcoming for some reason or other, there is no reason why the surplus energies of the population should not be mobilised for the development of the state. This method of taxing in kind has the distinct advantage of increasing capacity while taxing it.

If our orthodox notion of a tax is revised in this sense and the connotation of taxable capacity is similarly extended, the question of development finance in India acquires a new complexion. It is not denied that our undeveloped wealth of human material is truly enormous. If this could be developed by a proper system of education, public works, etc., our national productivity would increase so much as to place us in the front rank of nations. Our resources for development in money are undoubtedly low, but in men they are by no means negligible. If our scanty money revenue could be supplemented by a voluntary or compulsory service of citizens for nation-building activities, the problem of national finance would be solved. The contribution of service worth only one rupee per year per head of population, would save us 32 crores of rupees. But this could be greatly increased. Every economist has dwelt on the problem of unemployment and under-employment in India, on the general inactivity of the monsoon months, on the lack of subsidiary occupations and the idleness of the masses. Every one in India is familiar with the difficulty with which funds are collected for public purposes and the ease with which volunteers can be enlisted for the same. This

means that with the average man money is scarce but time is no consideration. If convenience is an important consideration and taxable capacity partly depends on the way taxation is raised, as Stamp says, it would be obviously desirable and easy to supplement the money taxes in India by taxes on time and energy.

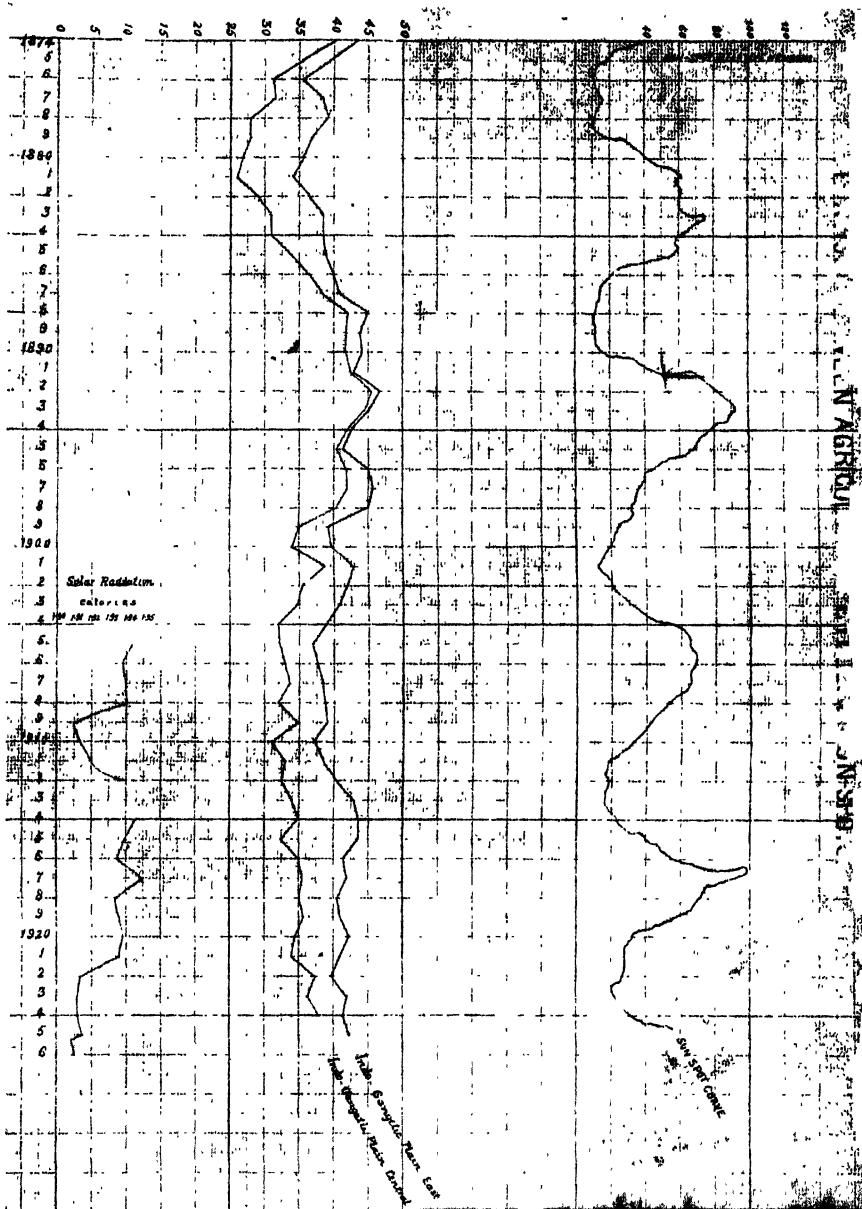
National service can of course be demanded subject to some limitations. It is not suggested here that the population should be diverted from its ordinary occupations. There will be no gain in that. What is suggested is that in addition to his ordinary employment, the citizen may be called upon to render some service to the state at a time when he can best render it, so that national productivity may be absolutely increased. Vacations for students and the slack season for agriculturists are obviously suitable times for rendering such service. As in the army in Europe, every one may be assigned a task suited to his character and capacity which will probably correspond to his ordinary avocation; but as in the army, where this is not possible, some may be assigned different jobs. The objection on the score of absence of division of labour does not apply. As every economist knows, the division is limited by the size of the market, i.e., by the amount of employment available. The cost of material, and, where the worker is taken away from his ordinary vocation, the cost of his subsistence will have to be borne by the state. National services will have to be compulsory for all as it will be impossible to work it on a voluntary basis. Exemptions in certain cases may have to be commuted for by money payments. Where expert agency will be more profitable, such service will not be necessary. It will be confined more or less to activities which commend themselves to and benefit the workers or in which the operations are of a routine and nonspecialised character or satisfy a universal need, such as road-making, railway construction, canal, tank and well irrigation, electrification, village housing, construction of school-buildings, adult and infant primary education, spinning, weaving, etc. The element of expert agency in these operations will of

course be supplied by a corps of permanent officers. National service would have its best scope in local areas for local objects which ensure popular interest and approval and therefore local bodies should be armed with powers, subject of course to central supervision, to demand service for village reconstruction.

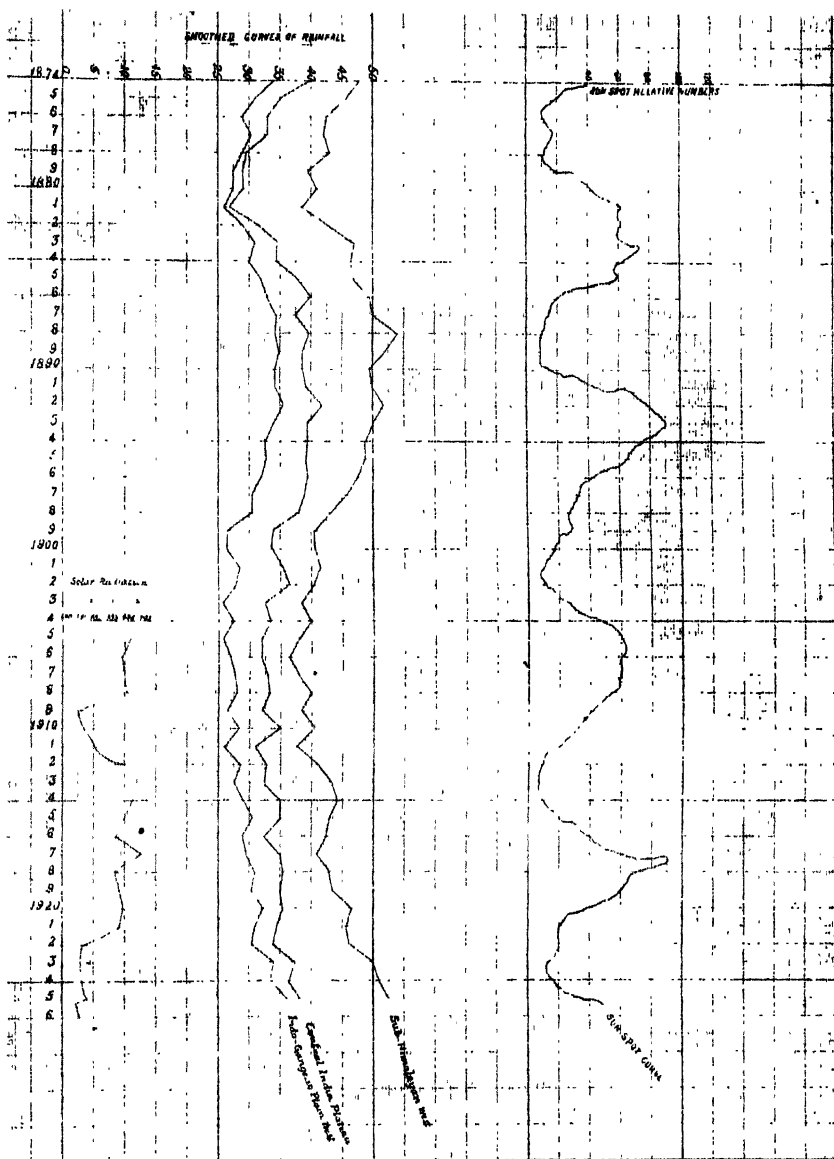
I understand the Mysore Durbar has armed local bodies with authority to demand labour services for the purpose of rural reconstruction. If this is correct, I shall be glad if Mysore economists will give us the benefit of their experience of the working of this system. Mysore is peculiarly fitted to carry out experiments on such lines. It is a small and compact state where difficulties of organisation are not insuperable and is governed by a ruler who knows no distinction between his interests and the interests of his subjects. It has advanced ideals in the field of social and economic reconstruction which are being carried out into practice by one of the finest civil services in India. Most of its expenditure is devoted to objects of public utility. It can therefore enforce a national minimum state service without being misunderstood. Its revenue in 1922-23 was 3 crores 10 lakhs. I presume it is not sufficient for carrying out all the schemes of development which the Durbar has ready and I also presume that all the resources of retrenchment, state industries and money taxation have been tried. It will be interesting to find whether contributions in service will not fill the gap between income and the proposed expenditure. Granting that a programme of development is ready, that a National Service Act is passed, it would be necessary to train a corps of officers, which I presume would be supplied by the University. The officers will be assigned to appropriate sections and they in their turn will train, during their vacations, junior officers and men placed in their respective sections, under the guidance and control of the district authorities. Presumably the vacation will coincide with the slack agricultural season. The men will be enrolled with due regard to local needs and essential occupations under the respective departments which

require their work, which will mostly be the P.W., the Industries and Education Departments. As far as possible they should work near the village where they live. In addition to this specialised work, cotton for spinning and standard quality yarn for weaving may be distributed through the post office or some other agency for the infirm and the able-bodied respectively and the cloth so manufactured may be given to the village employees and the enrolled workers of the state as a part of their emoluments. There will be thus secured by these means, a net addition to the national product which cannot be despised unless the extent of our under-employment and poverty has been grossly exaggerated.

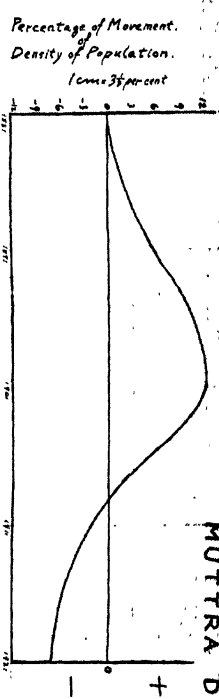
We have surveyed in turn the possible sources of income for the purpose of development—retrenchment, public enterprises, money taxation and national service. Retrenchment will not give us large returns in the near future and even such returns as may be available will be absorbed by increases under other heads. Operation of public enterprises is a doubtful proposition and will give us at the best a small sum, most of which will be really concealed taxation. Increase in money taxation is possible, but besides being inadequate for our purposes, will impose a grievous burden on the community and may under certain circumstances, trench on a rational standard of comfort. National service has great possibilities of meeting our requirements, but labours under limitation imposed by its own nature. No particular method can be adopted to the exclusion of the others and a just and far-sighted policy will combine them in suitable proportions. But the principle of national service as a method of meeting the difficulties of our industrial transition has been neglected so far and deserves a wider application, specially in a sphere in which it is peculiarly appropriate—namely, the sphere of local government.



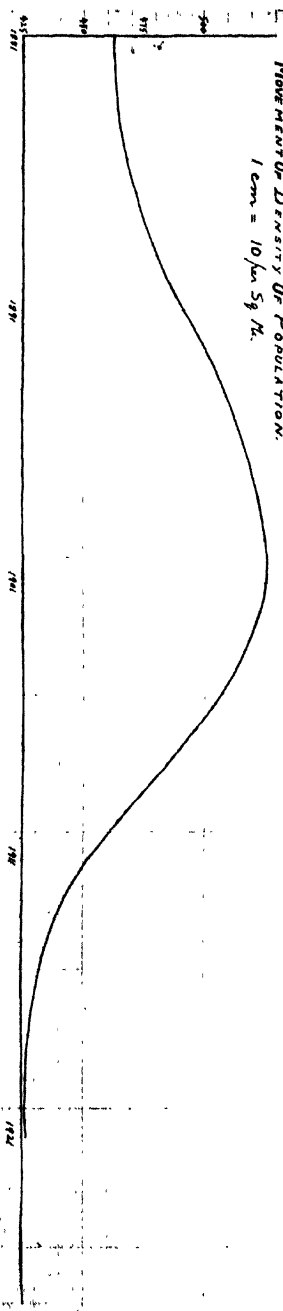
RELATION BETWEEN AGRICULTURAL CYCLES & SUN-SPOTS



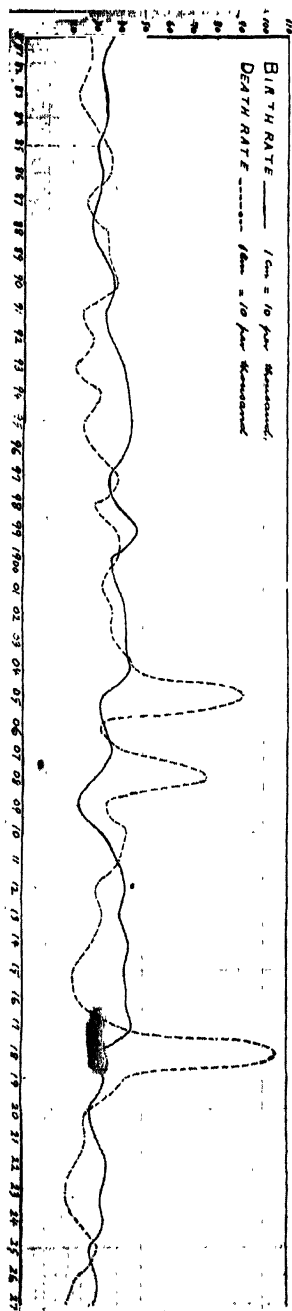
RELATION BETWEEN DENSITY OF POPULATION AND VITAL STATISTICS MUTTRA DISTRICT



MOVEMENT OF DENSITY OF POPULATION.
1 cm = 10 per 50 %.



BIRTH RATE ——— 1 cm = 10 per thousand.
DEATH RATE - - - - - 1 cm = 10 per thousand

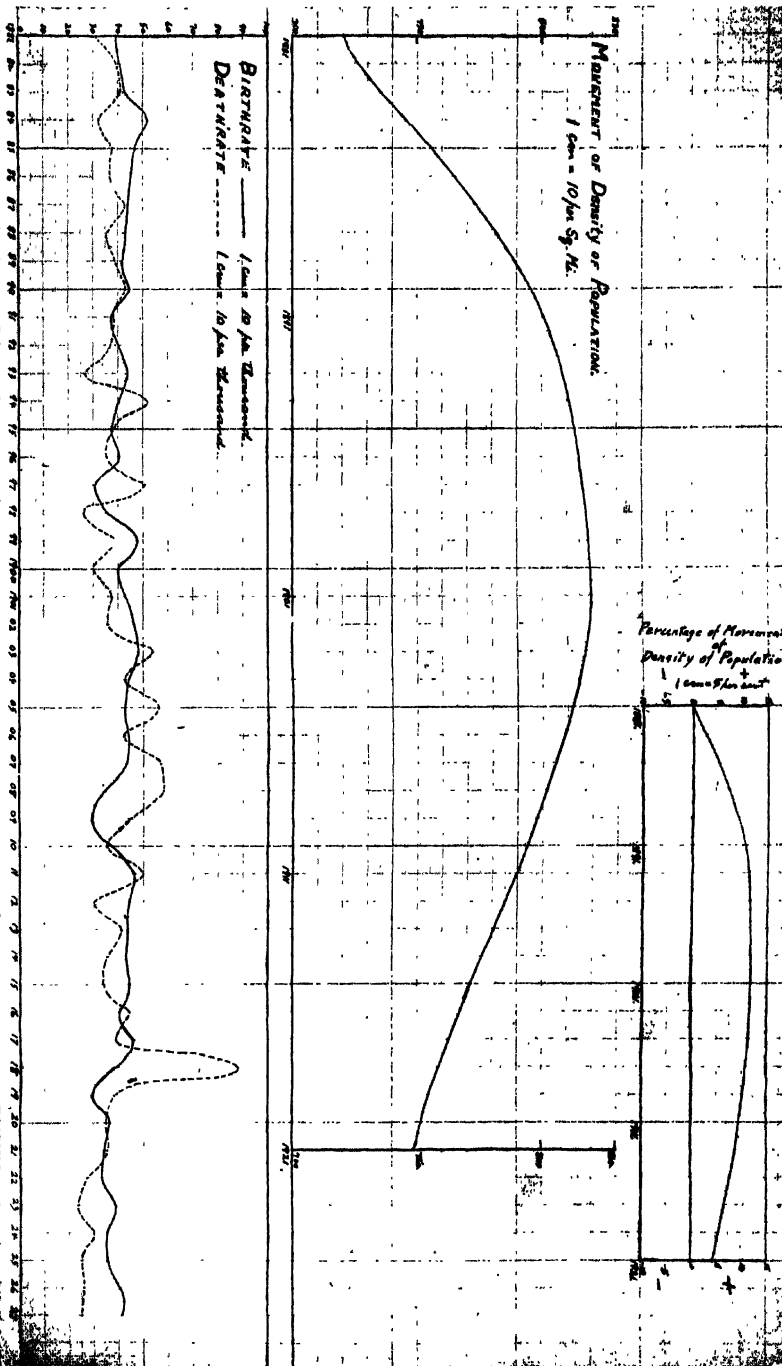


RELATION BETWEEN DENSITY AND VITAL STATISTICS LUCKNOW

MEASUREMENT OF DENSITY OF POPULATION
1 sq. mi. = 10 sq. mi.

PERCENTAGE OF MOVEMENT
OF
DENSITY OF POPULATION
1 sq. mi. = 10 sq. mi.

BIRTHRATE ——— 1 sq. mi. = 10 sq. mi.
DEATHRATE ——— 1 sq. mi. = 10 sq. mi.



RELATION BETWEEN HARVESTS AND VITAL STATISTICS

LUCKNOW

SCALE

BIRTH RATE

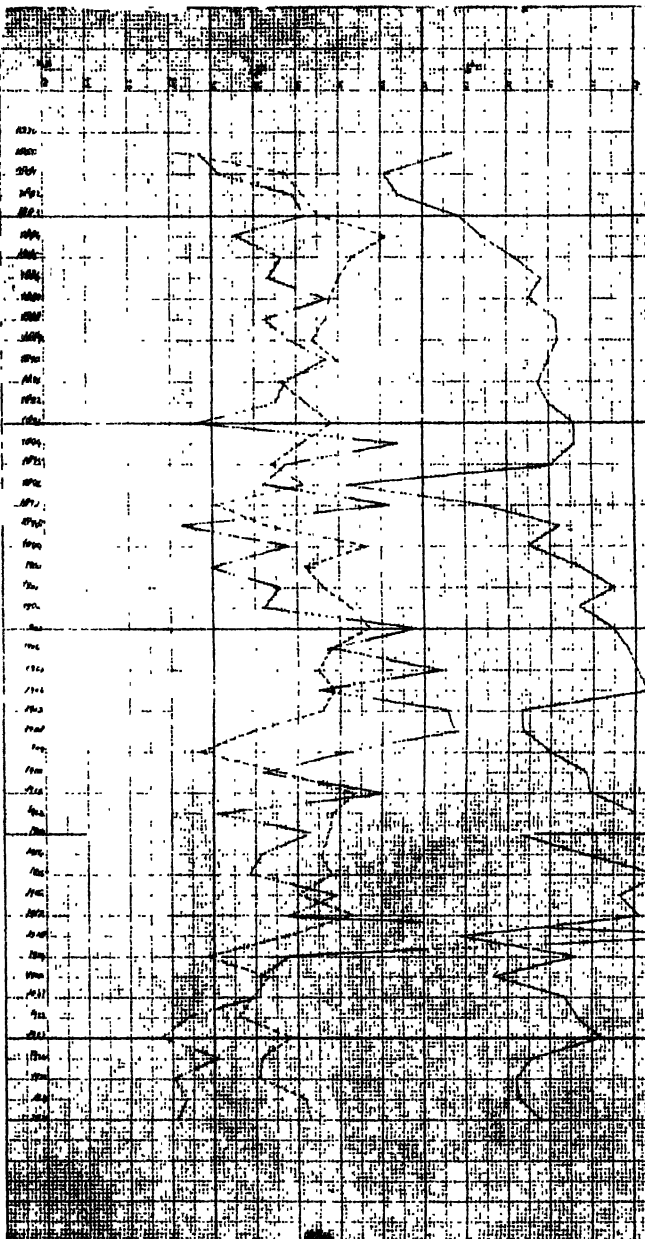
1 CM. = 5 PER THOUSAND

DEATH RATE

1 CM. = 6 PER THOUSAND

TOTAL CARRIED OVER

5 CM. = 1 LAKH ACRES



REPORT ON RELATIONS BETWEEN AMHERST AND WITH STATE OF MASSACHUSETTS BUREAU OF AGRICULTURE

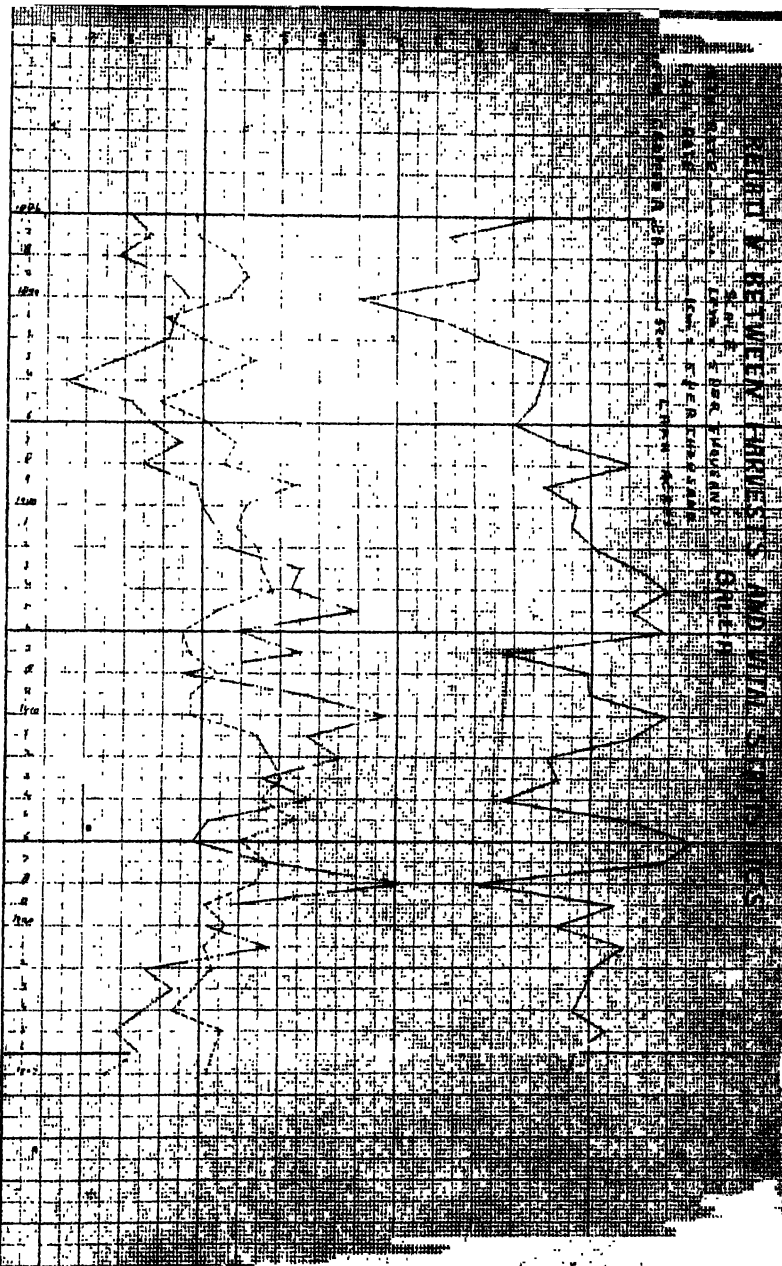
REPORT OF THE COMMISSIONER OF AGRICULTURE

AND THE SECRETARY OF AGRICULTURE

FOR THE YEAR 1892

MASSACHUSETTS

1893



CONFERENCE PROCEEDINGS

ADDRESS OF WELCOME

BY

DR. GANGANATHA JHA,

Vice-Chancellor, Allahabad University.

GENTLEMEN OF THE ECONOMIC CONFERENCE,

It is my pleasant duty, on behalf of the University of Allahabad, to offer you a cordial welcome. North India has been having a spell of severe cold weather: to some of you dwelling in milder regions the inconvenience and discomfort must be great indeed. But our welcome is sincere and the warmth of it may perhaps enable you to bear the rigours of our climate.

This is your Thirteenth Conference, and the Second Allahabad Meeting. Your Association has during this short period achieved considerable success. I say that on the basis of the very high terms in which the papers contributed to your Conferences and the articles published in your Journal have been spoken of by those competent to judge. I accept their judgment on trust; for I belong to a generation that had no opportunity of studying Carlyle's 'dismal science' either by its earlier appellation of Political Economy or its more general and modern title 'Economics.' Marshall, Keynes, Taussig, and Pigou are mere names to me: indeed in my college days they were not even names! My own studies have taken me to other and, perhaps in your estimation, unproductive paths. But I have been deeply impressed by the energy, enthusiasm, and industry which those who are responsible for the Association have brought to bear upon their work. You have stimulated and provoked thought and discussion; you have supplied answers—from their very nature tentative—to

acute problems of the day. And you have maintained all through that attitude of scientific enquiry, that freedom from party entanglements, that earnestness in the search after truth which must surely lead to success.

I shall not—particularly after the frank admission of my ignorance—venture even to enumerate the many important matters to which you can devote your attention. Many of these will trench naturally on political issues: this is unavoidable. But here, too, you will, I am confident, preserve the academic detachment which will, I hope, be induced by the walls within which you are assembled. Here all labels are removed, all petty loyalties forgotten, all jealousies effaced: there is only one label, that of scholar; only one loyalty, that to truth; only one jealousy, to vie with one another in endeavour to serve the cause of learning.

You have chosen as your President a gentleman whose educational experience and academic distinction eminently fit him for the position. Mr. Subba Rao's work in regard to higher education in Mysore is well-known. In welcoming you, distinguished Economists of the country, I am discharging a duty which is also a pleasure. I hope your stay here will be comfortable, and when you finish your deliberations and leave us you will carry away with you pleasant recollections of our humble but earnest efforts to make you feel at home.

OPENING ADDRESS

BY

KUNWAR MAHARAJ SINGH,

Commissioner, Allahabad.

LADIES AND GENTLEMEN,

It is my pleasant duty to open this Congress and to address a few words of welcome to the delegates of the Thirteenth Session of the Annual Conference of the Indian Economic Association. I understand that this is the second occasion on which the Conference has been held in Allahabad. This ancient city, famous both in Hindu and Muslim days as also in recent times, extends to you a cordial welcome. The present is an auspicious occasion as the time for the Kumbh Mela draws near and pilgrims in their thousands will flock to this city from all parts of India. Your programme is a full one, but I hope that some of you at least will find time to visit the Sangam and see for yourselves the arrangements that have been made for the accommodation of this very large number of pilgrims. Allahabad is also a centre of educational and political activities and there are here many buildings and institutions old and new which are well worth a visit. It is a pleasure to see distinguished gentlemen from all parts of India present at this Conference to discuss the many complex problems which affect the economic life of the country. We who are engaged in the work of administration value the help which trained experts can give us. You possess the requisite technical knowledge and have the necessary leisure to devote to the study of economics. We claim you as our colleagues. We are working towards the same end which is the prosperity of the people and

have much to learn from each other. Knowledge divorced from practice is barren. Equally the economic policy of government unless founded on a scientific basis loses much of its value. One of the main problems that faces both the administrator and the economist is the poverty of the masses. How is it to be dealt with? The problem must be urgently tackled. Already we see signs of friction between landlord and tenant or, to use a more comprehensive term, between capital and labour. In India, where the well-to-do classes are relatively small in number, it is inevitable that with the growth of education and the power of the vote labour will increasingly demand its rights. Let us see to it that the process is attained by peaceful evolution and not by the thorny path of revolution. It seems to me that there is no one solution. I have seen it sometimes suggested that emigration would solve the problem of congestion and the poverty that comes from congestion. But with its many advantages emigration cannot, in my opinion, touch more than an infinitesimal portion of our population. What is wanted is greater industrial effort, improved methods in agriculture, which is still our principal industry, and the provision of cheap capital. Our industries are in their infancy. In these provinces with a population of nearly 50 millions there is only one Cawnpore. Modern agricultural improvements are used by only a small percentage of our agricultural population. The cultivator in general is in a chronic state of indebtedness and in spite of the progress of the co-operative movement large masses who resort to the money-lender have to pay exorbitant rates of interest. I am glad to see that marketing is one of the principal items of your agenda. If only there was some method, whether by co-operation or the formation of sales societies, by which the middleman could be eliminated, or at least a larger share of the profits go to the producer what enormous advantage would accrue to the agricultural classes. Another obvious desideratum is the more rapid spread of primary education. We all know how difficult is the work of propaganda among

an illiterate people who because of their ignorance not unnaturally view new methods with suspicion. Your views on the problems of public finance—another subject on your agenda—will, I am sure, be of interest and value in view of the political changes now impending, which will without doubt lead to an increase in the powers of provincial governments. In these circumstances it is desirable and indeed inevitable that the question of the financial relations between the central and provincial governments should be discussed. To me it is particularly gratifying that the important subject of local finance has not been neglected. As Commissioner of a Division I am daily concerned with it. On the one side there is the growing demand for expenditure by local bodies on education, public health, and other necessary services. At the same time there is the inevitable reluctance of local bodies to impose taxation. Government grants alone cannot solve the difficulty. There is, I admit, undoubtedly room for improved assessment and better collection, for closer control over expenditure and for the prevention of waste. Nevertheless increased taxation by local bodies, unpopular though it be, seems inevitable. If so, what should be the sources and methods of taxation? On these and similar questions we shall be grateful for your views, for the opinions of distinguished economists, particularly when there is a substantial unanimity of opinion, must sooner or later influence public opinion. Gentlemen, you are fortunate in having as your President Mr. Subba Rao, an economist of acknowledged reputation, to guide you in the discussion of your subjects. By his distinguished services on the Second Tariff Board better known as the Cotton Industry Enquiry Board and as a capable and trusted officer of the Mysore Government, he can claim to assist you not merely as in academician, but also as a man of affairs. Once again I extend to you a cordial welcome on behalf of the citizens of Allahabad and I have much pleasure in declaring open the Thirteenth Annual Conference of the Indian Economic Association,

PRESIDENTIAL ADDRESS

BY

N. S. SUBBA RAO,
Bar-at-Law, Bangalore.

ECONOMIC CHANGE AND EDUCATIONAL ADJUSTMENT

I propose to take as the subject of my address the relation between the Economic conditions in a modern community and its Educational organization with special reference to India. When I was honoured with election to the Presidential Chair last January, I had hoped immediately to commence working at my address and present something on economic theory worthy of consideration by my colleagues. Unfortunately, not only did my new work of educational administration make it impossible for me to attend to this task till very recently, but when I started work I also found to my dismay that the difficulty one experienced as a teacher of Economics in keeping abreast of modern developments in theory and practice was surpassed by the ease with which one could lose touch with the subject. I thought, however, that I could cover my discomfiture by selecting a subject which, in addition to its topical interest at the present time, might enable me to play the rôle of the student of economics among educational administrators and of the educational administrator among students of economics. As I proceeded with my task, the uncomfortable consciousness dawned on me that I had ceased to be a student of economics without having acquired title deeds to educational administratorship, and I have a foreboding that this feeling of mine will be shared by my audience ere long.

I have one consolation and that is, the subject is of live interest at the present time all over the world and not least so in India; and I have one title to stand before this audience of economists. It is said that Lord Morley—John Morley as he was then—once had to address an audience in Manchester during the troublous times of the Boer War, when feeling in England ran high against speakers in sympathy with the Boer cause. He was able, however, unexpectedly to disarm a hostile audience and obtain a patient and even good-humoured hearing by uttering the talismanic sentence “I am a Lancashire man.” I am confident of indulgent treatment at the hands of this critical audience, since I can claim that I have sat at the feet of Alfred Marshall for two precious years. Nor is this all. It is well-known that in this holy city of Prayag additional merit of no mean degree accrues to one who bathes at the Triveni, where the Ganges and its two tributaries meet. I claim that I have received my economic baptism at the Cambridge Triveni. It was my good fortune to be a pupil not only of Alfred Marshall but also of Pigou and J. M. Keynes.

This is not the place nor the occasion, to dwell on the personal charm and the great kindness of these teachers, or to expatiate on the contributions to economic theory and practice made by the Cambridge School of Economics. Busy as he was with his great work, Marshall was not too busy to attend to the smallest request of the least of his pupils, and he could be trusted to remember a casual request for a book made in the class-room and walk with it from Madingley Road to the lecture rooms the following week. He would not only listen to the dietetic idiosyncrasies of his pupils and assure them of their requirements being met at his lunch table, but was also capable of interrupting a close argument with his neighbour to point out to the food crank at the other end of the table that the dish offered to him, which he was about to refuse, was innocuous and could be safely partaken of. The great treatises of Marshall and Pigou are well-known in the academical world, and the contributions to monetary theory of

J. M. Keynes not less so, though they are not yet available in the form of a treatise. Lord Morley has said that some books in political literature rank in history as acts, not books. To this category belongs Keynes' famous "Economic Consequences of the Peace" which shook the Cabinets of Europe out of a complacent acceptance of the Treaty of Versailles into a recognition of the stern realities that lay beneath and the disaster that would follow rigid enforcement of its provisions. Not only has Keynes made history and become a world figure, but he has also definitely obtained for the academical economist a prominent place in the world of affairs. If his claim that the "Economist ought to be King"¹ has not been accepted, economists are at any rate now reckoned among the architects of the new world and not merely considered to be observers, compilers and interpreters of facts.

From these thoughts about the Cambridge School of Economics, and the services that the economist is now called upon to render in the work of reconstruction, the mind naturally turns to the questions, "Is there an Indian School of Economics? What are its contributions to the development of economic theory? What part has it played in the economic reconstruction of the country?" The Government of India may be said to have given its authority to an affirmative answer to the first question, since it has put "Indian Economists" on the Banking Enquiry it has instituted, and we note that the term is not meant to be racial in connotation, since at least one Englishman who professes economics in an Indian University, has also been styled "Indian Economist." It is doubtful however, apart from this official seal set on the existence of a School of Indian Economics, if there are adequate grounds for answering

¹ "No! The Economist is not King: quite true. But he ought to be! He is a better and wiser governor than the general or the diplomatist or the oratorical lawyer. In the modern over-populated world, which can only live at all by nice adjustments, he is not only useful but necessary. Where the rulers of the State dethrone the economic power in favour of the false idols of diplomacy or any other of M. Hanotaux's mystic and incalculable forces, squalor follows."—J. M. Keynes: *Manchester Guardian*, "Reconstruction in Europe," May 18, 1922.

the question in the affirmative. It is not easy to say if any definite contribution has been made by Indian students of economics to the development of economic thought, or if any particular economic doctrines can be associated with them. There is possibly one exception and that is in the realm of monetary theory. Keynes has said that "the path of true monetary policy is a very narrow one. Men are born of two kinds (excepting in South America, where all are of the second)—mercantilists and inflationists—those that believe that a sufficiency of solid gold is a cure for all financial ills, and those who believe that a sufficiency of cheap credit and paper money will promote unlimited prosperity for us. Each school in turn influences the conduct of affairs. The truth lies with neither."² If Indian economists can be associated with any definite body of doctrine, it is in the realm of currency where they have tended towards Mercantilism, no doubt reacting to the vagaries of Government policy.

My predecessor deplored last year the poverty of contribution made by Indian student of economics to the development of economic thought, although for a number of years economics had been a subject of study in our Universities. It is unfortunate that it should be so, but the reasons are not far to seek. It is only in recent years that economics in our Universities has ceased to be a subsidiary subject of study, the neglected sister of Olio. It is in the last fifteen years or so that economics has come to obtain an independent position among University studies, and I believe I am right in saying that the first Indian University Department of Economics was established at Allahabad with Professor H. S. Jevons at its head, in the year 1913. It is, therefore, only very recently that Universities in India have been able to arrange for teaching of economics by specialists in the subject, and it is not every University that can even now boast of adequate facilities for advanced study and research. I am not sure if many Universities

² "The Prospects of Money, Nov. 1914," *Economic Journal*, Dec. 1914.

can boast of complete sets of leading journals like *The Economic Journal*, *The Quarterly Journal of Economics*, *The Economic Review*, *Revue D'Economie Politique* and the several *Jahrbücher* of Germany, nor does one often come across complete or even fairly full sets of blue books on economic subjects. Lastly, there has not been that close touch, and frequent exchange of views, between the staff of the Economics Department of one University and of another, and although our Association offers a convenient forum for discussion, it cannot be said that it has been taken much advantage of. I should like to suggest that the pages of our Journal should be used for short articles advancing fresh points of view that invite controversy and require discussion. The Journal, I venture to say, is no place for long monographs or tracts, which should be published separately under the auspices of the Universities. It is also desirable that a considerable section of the Journal should be devoted to an analytical summary of new doctrines and modifications of the old that are put forward from time to time in the leading economic journals of the West. Lastly, I would like to remind my fellow-members that the day is past for bulky treatises and attempts to establish Neo-Copernican systems in economics.

There has been a gratifying recognition that the presence of an academical student of economics is helpful in economic enquiries and investigations set on foot in the country in recent years. Professors of economics have been appointed to the several Committees and Commissions instituted in recent years, an economist is one of the members of the Indian Tariff Board, and this year economists have been appointed to the Central Banking Enquiry Committee as well as to each of the local committees. One extraordinary, and to my mind inexplicable exception should, however, be noticed, and that is the Royal Commission on Factory Labour. One would have thought that here exactly was the one enquiry in which the services of an academical student of economics, fitted by temperament and training to see "the Many in the One, the

One in the Many," would have been of service to the Commission, which contains men of affairs of great experience, prominent leaders of industry, as well as representatives of labour. More than thirty years ago when a similar Commission was appointed in Great Britain, the famous Royal Commission on Labour, Alfred Marshall was one of the members, and his influence is writ large across the pages of the report.

It is not necessary, however, unduly to deplore the omission, and to exaggerate the value and significance of these fitful enquiries into different aspects of the economic life of the nation, nor can one be always sure that they have not been sometimes instituted rather on account of political expediency than out of solicitude for the economic welfare of the country, when one remembers that even Morley was not above throwing dust into the eyes of his critics by instituting enquiries.³

These Committees and Commissions have their day and cease to be, leaving not a wrack behind, except, of course, bulky reports and innumerable volumes of evidence that nobody ever opens. The time has come for systematic and continuous work, and India may well imitate the example of the United States of America, which has instituted permanent bodies like the Tariff Commission and the Federal Trade Commission and other bodies, which make investigations *suo motu* as the result of a comprehensive plan of campaign. The result is, we have reports which are solid and permanent contributions both to economic literature

3 "I threw out the idea of asking you to employ a first-class inspector from this country to enquire into the Bombay factory system and to report to you We here even are not up to the standard of some parts of Europe; still less is India up to that standard. I hope that you will see no strong objection to this notion of a visit from one of our Home Office Inspectors. I am naturally not anxious to irritate the Bombay employers but you can hardly realise the strength—I might even say the violence—of the currents now racing in the House of Commons on all Labour questions."—Morley to Minto, March 15, 1906. *Recollections*, Vol. II, pages 166-167.

as well as towards the formation of a definite, consistent and sustained economic policy.

In India, fortunately for us, the materials for a similar All-India Organization are ready at hand in the Tariff Board and the Department of Statistics and Commercial Intelligence. The Tariff Board has been functioning long enough to furnish ample materials for a doctoral thesis, or a course of special university lectures on, say, "the Part played by the Recommendations of the Indian Tariff Board in the Economic Development of India." It has explored practically all possible avenues, large and small, for granting discriminating protection, and is now engaged on Salt. Rumour says it will next proceed to Sugar. When this has been done, I suggest that the Tariff Board may be set the task of reviewing its own work in relation to Indian economic development, without limiting itself merely to the field of tariff changes. The result would be far more valuable than hurried investigations in fields of little economic importance for the country as a whole at the request of parties who, after the manner of the King in "Alice in Wonderland," want a peremptory judgment in their favour rather than a deliberate judicial investigation. The Board may be suitably enlarged, and allowed to appoint sub-committees and individual expert investigators. It should have power to make enquiries and surveys on its own initiative, and submit recommendations to the Government from time to time. In brief, it should serve, in Sir William Beveridge's phrase, as "the Economic Intelligence Staff" of the country, and may even in due course pave the way for the establishment of a "Department charged to devise necessary social and industrial adjustments that are intended to prevent the very occurrence of a widespread or long-continued involuntary wagelessness."⁴

Such a National Board will have a formidable task and will be called upon to raise large issues. Almost the first ques-

⁴ S & B. Webb: *English Local Government*, Vol. II, page 715.

tion the Board will have to consider is the direction in which Indian economic development may be expected to lie. It looks as though the latest Royal Commissions, one on Agriculture and the other on Factory Labour, are intended, the former to direct and the latter to warn! On the other hand, it was claimed by the India Office in 1921 that India was one of the eight leading industrial countries in the world, and therefore entitled to representation on bodies connected with International Labour Office. We have been assured on high authority that "it is no longer reasonable to assume, as a matter of course, that an increase in a country's manufactures must be welcomed more heartily than other developments of her economic activity,"⁵ and further in the case of India, that "every diversion of indigenous capital from agriculture, where her relative advantage is great, to industries, where, to mention one only of the difficulties, the relative positions of coal, iron and the sea, place her at a disadvantage, will be to the detriment of her economic prosperity. The mills of Bombay and Calcutta figure too large in the public eye. They have, and will continue to have, an insignificant influence on the general level of economic well-being throughout the whole extent of the country. The raising of the level of comfort amongst the vast mass of the population must be brought about by the application to the *land* of the brains and the capital of new India."⁶

It has to be admitted that there was, before the War at any rate, a plausible support given to these views by the balance of advantage in international trade lying on the side of countries like India which exported foodstuffs and raw materials, though of course that by itself cannot be considered a decisive argument in favour of pursuit of agriculture as the paramount occupation of any country. The Great War seemed further to accentuate this advantage. Unfortunately, from 1921 onwards, events have

⁵ Marshall : *Industry and Trade*, page 683.

⁶ Keynes reviewing Sir Theodore Morison's "Economic Transition in India," *Economic Journal*, September 1911, page 428.

taken an altogether different turn, and the paradoxical situation has developed that India and other agricultural countries are now at a disadvantage as against industrial countries. There has, no doubt, been more recently a closer approximation to the conditions before the War, as indicated by the ratio of import prices to export prices, but events have certainly brought out the inexpediency of a country's excessive dependence on agriculture.

Nor is there any reason to believe that a large country like India cannot herself produce essential industrial products, for example, like cloth and sugar, provided necessary support is given for a time to enable her to face foreign competition. It is a commonplace to say that the present world disparities in respect of industrial production are not all due to insurmountable disparities in respect of power, raw materials or labour. A great deal of the present international division of labour is due to initial momentum, habit, inertia, and similar causes. The War has helped to break old habits and old connections, and brought countries into touch with new sources of supply, as Japan has taught us to realize. The foreign trade of India bears resemblance even now to the traditional exchange of goods between developed and undeveloped countries, when the former could foist on the latter cheap and flashy articles like glass beads and trinkets, and get in return ivory, gold dust and spices. The cheap and brittle toys imported into India in large quantities from Germany and Czecho-Slovakia are a case in point. There is no reason why a considerable part of the present international division of labour should not take place within the nation itself, when a country is large and its resources are varied, as is certainly true of India. After all, we have generalized far too much on the basis of the developments of the second half of the nineteenth century,⁷ and the probabilities are

7 "Progress during the 19th century was an affair of acceleration. It depended essentially on perpetual expansion; its organization presumed this; and it could not have taken the same form in a stable society. Some of the expanding

that almost every country in the world, as local development proceeds, will be compelled to think more of the home market and to accept a larger amount of national division of labour and self-sufficiency than has been the case heretofore.

It is necessary to sound a note of warning with regard to one obstacle to any scheme of development on all-India lines. Agriculture and Industry are transferred subjects, and the temptation for Ministers and local Legislatures will naturally be to regard any proposed scheme of development from a provincial point of view, if not indeed a parochial point of view, and support local centres of production even when economic factors are not favourable. For example, should events make it more abundantly clear that the reign of Bombay as a centre of cotton industry is over,⁸ it would not be in the interests of Indian development that the mills of Bombay should be bolstered by artificial aids against the natural development of the industry elsewhere in India. Further, it is well-known that efficient production in certain lines in the face of keen foreign competition can only be carried on by very large units in localities where the natural and other advantages are pronounced. It would, therefore, be an unpardonable waste of resources to distribute units of production of moderate size all over the country. Cotton spinning and cotton ginning are obvious examples of this wasteful duplication of plant. All this could be avoided if businessmen were enabled to visualize the development of the country as a whole and could be placed in touch with movements and tendencies in other parts of India. This will be pre-eminently the task of the suggested All-India Organization, whose one aim should be to allow production to be localized in those parts of India which offer favourable milieu

elements are not capable of further expansion to the same extent as before. The exploitation of new natural resources, though not exhausted, has not the same possibilities as a hundred years ago."—J. M. Keynes: *Manchester Guardian*, "Reconstruction in Europe," August 17, 1922.

⁸ Except in respect of higher counts and foreign markets.

and to discourage attempts elsewhere, which are doomed to failure and will result in loss and discouragement.

Such a programme of development cannot come a day too soon in view of the unfortunate drift of things in the country. Taussig divides workers into "the two great classes of the soft-handed and the hard-handed" and suggests that "the owners of property yielding an income" should also be placed "in a large sense, in the same class as the upper groups of the wage-earners and especially with the highest and most favoured group."⁹ This cleavage between the two sections of society corresponds approximately to the favourite distinction the older economists were wont to draw between *productive* and *unproductive* labour, a distinction which has been blurred by the modern extension of the scope of economics as a science which "is not confined to satisfaction of material wants, but relates to the measurement of any and all wants and satisfaction in terms of money or other means of exchange."¹⁰ In a suggestive chapter of his work, *Poverty and Waste*, Hartley Withers enumerates a long list of people whose services have to be paid for before the consumer can make any commodity his own. In addition to "the capitalist, the employer, or manager with his staff of clerks, the conveyer, the merchant, the broker, the advertiser, the retail dealer and the banker who provides them all with currency and credit," he points out that "there is a hungry horde whom production has to feed and clothe and house and provide with comforts and luxuries, though they have no direct connection with primary production. Among the most important are the rulers, Government officials, Civil servants, policemen, soldiers, sailors and others, who provide us with governance and security. Then there are the lawyers, doctors, clergymen of various kinds, teachers, writers, artists, artistes, stockbrokers and many other providers of our

⁹ Taussig : *Principles of Economics*, Chapter 47.

¹⁰ Sargent : *Economics of Fatigue and Unrest*, page 128.

mental, moral and material comforts, including the undertakers who finally bury us.”¹¹ It is true, he goes on to say, that “ their claim is just enough in most cases, for some of them render services without which the producers could not produce, and others supply the entertainment and instruction and diversion and enlightenment without which the producers would live like convicts on a treadmill.”¹² Nevertheless it has to be recognized that “ their services are sometimes exceeding costly.” It is no doubt true that “ the community could not do without the services of most of the hangers-on of industry; but they are so much water in its capital, and live ultimately, on the brains and sweat of the workers.”¹³

It is therefore of fundamental importance to a community what proportion of its occupied population is in the ranks of this soft-handed group, and even more, what proportion of the national income goes to this group. In another context, Keynes has given a startling example of the costliness of the services of this group. “ The other point is a trifle and reflects perhaps on a curiosity of our economic organism rather than on the India Office. It was slightly shocking to discover that the Government broker who is not even a whole-time officer, and has a separate business of his own, is the highest paid official of the Government with the sole exception of the Viceroy. He has probably been paid too high even on current City standards. But it suggests once again the old question how long it will be found necessary to pay City men so entirely out of proportion to what other servants of society commonly receive for performing social services not less useful or difficult.”¹⁴

¹¹ *Poverty and Waste*, pages 127-128; I have omitted the workman from the list as he belongs to the other group.

¹² *Ibid.*, pages 128-129.

¹³ *Ibid.*, page 133.

¹⁴ Keynes : *Indian Currency and Finance*, page 192,

It is not my purpose to enter into a discussion of the unequal distribution of incomes in society, but it seems to me that it is necessary to draw attention to the tendency for the present educational system almost everywhere to encourage the diversion of recruits to soft-handed occupations from the other group. It has been remarked that "the desire of the working man to-day is to use the school to get his son into some black-coated job and to keep him away from skilled manual labour."¹⁵ Mr. Philip Snowden has also observed that "the products of our secondary classes and universities are crowding the black-coated professions and occupations. Education is a failure unless it inculcates the idea that all useful work is honourable and that the working engineer or carpenter or weaver is a more useful member of society than a commission agent."¹⁶ The urgency of the problem in England has led to the appointment of a series of committees to enquire into the public system of education in relation to the requirements of trade and industry.

The position becomes more serious when the educational system gives a bias not only away from manual work, skilled or unskilled, but also a further bias towards posts in Government offices, the main objective being work of a sedentary character with an assured regular income. It appears as if the malady accompanies the imposition of the Western system of education on an Eastern people. It was remarked recently that in the Philippines "year by year thousands emerge from the elementary and secondary schools; the majority of these are anxious to be employed either as clerks or as teachers. In spite of their training in industrial work, they have no love for such work or for agriculture. It is the tendency of these to seek employment in the offices. If this tendency of the pupils of public schools is not curtailed, the time will come when the greatest evil of our present educational system will be the production and creation of social para-

sites. So large a class of academically trained in a population of eleven millions, almost wholly agricultural in its basic industry and native wealth, cannot possibly find employment in the ordinary professions and government offices without at the same time reducing the great mass of the people to a condition of exploitation. If dissatisfaction of the exploited classes does not arise, the discontent of the large academically educated class for which there is no reasonable support and no normal occupation, will undoubtedly result.”¹⁷

These words might have been written of India. The latest *Quinquennial Review of the Progress of Education in India* says that “a feeling of late, has gained ground that the educated people should not take up their hereditary occupations, but should try to obtain employment of a clerical nature under Government or some other public body, failing which under some other private firm.”¹⁸ The reports of the numerous Committees on Unemployment in India, and it is highly significant that all these committees are concerned with unemployment among the educated middle classes, corroborate this apprehension. There is not adequate employment of a clerical character to meet the demand, and the applicants have not been trained for other occupations, and they have not, or believe they have not, the necessary aptitude for manual occupations.

This exaggerated tendency to make a living by occupations of a soft-handed character is economic atavism, or it would probably be more correct to say that it is the survival in a modern form of a well-known feature of the ancient world and of the middle ages. In the ancient world the citizen class cherished “a contempt for industrial occupations; every form of production, with a partial exception in favour of agriculture, was branded as

¹⁷ Monroe: *Studies in Comparative Education*, pages 45-46, quoting from a local report.

¹⁸ *Progress of Education in India*, page 128.

unworthy of a freeman—the only noble forms of activity being those directly connected with public life, whether military or administrative. Labour was degraded by the relegation of most departments of it to the servile classes, above whom the free artisans were but little elevated in general esteem.”¹⁹ We know that in mediæval times in Europe, and what corresponds to that period elsewhere, the nobles lived the life of chivalry and the clergy of devotion, while the serfs toiled for them. The modern economic organization tends to create a class of persons who are able to thrust themselves between the primary producer and the consumer, and make a living for themselves in diverse ways.

The foregoing observations are certainly not intended to disparage the significance of “ Service occupations ” in a community, nor does the fallacy underlie them of identifying the wealth or income of a community with material products. It is not suggested, for example, that India would be better off if the energies of its unemployed or employed matriculates and graduates were diverted to production of liquor, cocaine and other intoxicants and drugs. Nor is one oblivious of the fact that there are great wastes in consumption of material goods. Alfred Marshall has drawn attention to the need for “ the higher study of consumption,” though he has added that “ while it may have its beginning within the proper domain of Economics, it cannot find its conclusion there, but must extend far beyond.”²⁰ A student of Marshall cannot fail to recollect passages in which he has pointed out that there are great wastes in consumption, both of the rich and of the poor, and that “ the world would go much better if everyone would buy fewer and simpler goods and would take trouble in selecting them for their real beauty.”²¹ It will be remembered that Professor Smart similarly pleaded for a more

¹⁹ Ingram : *History of Political Economy*, pages 9-10.

²⁰ Marshall : *Principles*, page 90.

²¹ Do. do. page 137.

adequate analysis of consumption and its effects than English economists have generally given and suggested "the substitution of a reasoned and conscientious demand for a thoughtless and irresponsible one."²² To admit all this, in no way, affects my position that it is not good for India, while its agriculture and industry are ill-developed, that its educational system should be turning out large and increasing numbers of matriculates and graduates, whose aim and economic salvation consist in obtaining under the guise of clerical or similar work an assured title to a share in the national supply of the essential needs of life produced by others, while they themselves contribute in no appreciable degree towards their production, but merely constitute, in fact, parasites in the economic system.

The preceding observations will have served their purpose if they have succeeded in centering attention on the problem of the day in our country: economic changes and educational adjustments so as to secure increasing employment of the right sort for the youth of the country. It will be the task of the National Economic Council or Board to work out a detailed plan, and it will obviously have to examine several factors that help or hamper the desired changes, among others, the existing diversity of industrial organization, currency and banking conditions, the tariffs and the "Labour Problem." Labour indeed offers to the economic reformer not one but several problems, such as the basis of reward for work, including an allowance during periods of enforced idleness, regulation of conditions of work, the place of labour organizations in the control of industry, and last but not least, provision for training and systematic recruitment.

Economists have not ignored the importance of industrial training. We are all familiar with the chapter in Marshall's *Principles* on Industrial Training²³ and we are equally familiar

²² Smart : *Second Thoughts of an Economist*, pages 141-142.

²³ Section 7 of the chapter has as its marginal summary the phrase "Education a National Investment,"

with the memorable dictum of the master that "it is the young whose faculties are of the highest importance both to the moralist and the economist. The most imperative duty of this generation is to provide for the young the best education for the work they have to do as producers and as men and women together with long continued freedom from mechanical toil and abundant leisure for school."²⁴ These words were written many years ago, but it cannot be said that till recently it was recognized widely that the conservation and proper utilization of the human resources of the community were matters of as great national importance as the conservation and development of natural resources.

It is only recently that the problem assumed a national aspect. So long as there were avenues of training for the professions and the higher grades of technical work on the one side, and the apprenticeship system sufficed on the other to meet the needs of the rank and the file, the situation was not pressing. Under the stress of the Industrial Revolution the apprenticeship system broke down, but the gravity of the position was not realized. Further, when general education, even of the lowest grade, was yet the privilege of a minority and not a national service, it was hardly to be expected that the problem of technical or vocational education would vex the community. It was only towards the close of the 19th century, with the progress of democratic government, that elementary education for all became an accepted duty of the State in the Western countries, and it is no longer in dispute that "in proportion as the structure of Government gives force to public opinion, it is essential that public opinion shall be enlightened." (George Washington)

It cannot be said that this willingness to make education march with the needs of democracy has realized itself in all its implications. Secondary education, even in advanced countries like England, is only for the few, and Mr. Fisher had to point

out that it was "one of the weakest points of the English system of education that so small a proportion of the population proceeded to the Secondary schools, and that so small a proportion of these who did were able to stay for a full period."²⁵ The Hadow Report has been welcomed because of its definite pronouncement on the subject, and the Labour Party has as one of its objectives the development of public Secondary Education so that "all normal children, irrespective of the income, class or occupation of their parents, may be transferred at the age of 11 from the Primary or Preparatory Schools to one type or another of Secondary School and remain in the latter till 16,"²⁶ and the party looks forward to "a system of free and universal Secondary Education." It will be noticed that the Secondary School is to be of "one type or another." In England as elsewhere, the traditions of the class that resorted to Secondary Education made it an avenue to the Universities, and the result was the uniform literary type of Secondary education. The same has been the case in several other countries, and in India it is so to this day. Germany has had for many years two types of Secondary institutions, the classical and the modern, and England is now proposing to have 'Modern' schools with 'realistic' curricula including practical subjects.

The extension and diversification of Secondary education is but a stage in the development that democratization of education implies. The work of the Secondary schools has to be supplemented by institutions that will replace the obsolete apprenticeship, and offer a more efficient preparation for employment in industry than 'pick up' methods. The problems of educational reform and adjustment of the educational system to the economic requirements of a country are many and complex, and before they are examined with reference to Indian conditions, it is desirable

²⁵ Parliamentary Debates, House of Commons, 19th April, 1917.

²⁶ *Secondary Education for All*, ed. R. H. Tawney, page 1.

to review briefly the changes that have taken place, or are taking place in the leading countries in the West.

The terms, Vocational Education and Vocational Guidance, are American, though the ideas underlying them are not. It is America, however, that has, with characteristic thoroughness, developed the theory, the practice and the literature of the subject to an extraordinary degree. One definition of Vocational Education that will serve our present purpose limits it to "that part of the educative process which directs the activities and controls the environment of the learner to the end that he may acquire the mental attributes and abilities which make him an efficient and happy economic producer."²⁷ The Federal Board of Vocational Education in the United States, whose work will be described immediately, has defined its duty as "to extend and democratize the secondary public school system of the United States so as to offer a broad practical training for useful employment to the growing millions of our boys and girls, who for want of such training are going unprepared for their life's work into Agriculture, Industry, Commerce and the home."²⁸ The function of Vocational Guidance is said to be "to help each individual to reach that particular vocational niche, or better, gateway which leads where he will most greatly benefit himself and most fully contribute to the good of all."²⁹

The progress of vocational education in the United States of America has been remarkably rapid. So recently as 25 or 30 years ago, the High School was a narrow single track institution serving a rather highly selected group of pupils who were seeking cultural education and preparation for the learned professions, but in 1927, Dr. Monroe was able to report that "at least 40 per cent of the two million pupils in Secondary Schools in the United

²⁷ Eaton : *Education and Vocations*, page 24.

²⁸ First Report of the Federal Board for Vocational Education.

²⁹ McCall, quoted by Trumball : *Junior Wage Earners*, page 67.

States of America are majoring in Vocational lines, 28 per cent of the total are in the one field of Commercial Education.”³⁰ It was only in the first decade of the present century that educationists and leaders of business and industry in the United States came to realize that a new and fundamental educational need had arisen with the tremendous expansion and the continually increasing complexity of business and industry. One result was a demand for an examination of the subject of National Aid to Vocational Education. A Federal Commission was appointed and reported early in 1914. It reported that that kind of practical education, namely, that which prepared boys and girls for useful employment, had been largely neglected, and that while a stronger vocational element was needed in general education, no vocational school was worth its name which failed to give not merely special preparation for a vocation but also a considerable amount of general education. The situation called for measures to promote, not education for leadership in commercial and industrial activities, for which there were fairly adequate opportunities, but that practical education of secondary grade whose object should be to reach the great body of the workers of the country. The Commission instituted a pointed contrast between the United States and Germany in this respect by stating that there were fewer trade schools in the United States of America than were to be found in the little German Kingdom of Bavaria with a population not much greater than that of New York City.³¹

As a result of the recommendations of this Commission, the Vocational Education Act was passed in 1917, and a Federal Board for Vocational Education was organized in the following year, and with what effectiveness the work has been carried out, the quotation from Dr. Monroe above will have shown. The Board

³⁰ Monroe, *op. cit.*, page 131.

³¹ The Report of the Commission on National Aid to Vocational Education, Chap. I.

co-operates with the States in the promotion of Vocational Education in Agriculture, Trade, Industries and Home Economics, the scope of education being defined as of less than College grade. The Board has at its disposal an annual grant of over seven million dollars, and it subsidises, on a basis of equal grant, approved programmes of work formulated by the State authorities. The total amount spent on Vocational Education rose from three million dollars in 1918 to twenty-two million dollars in 1925, and in several of the States, attendance at part-time continuation schools has been made compulsory for young persons between the ages of 14 and 16 or 18. In 1925, the number of pupils in schools of the two types aided by the Federal Board was 659,000. To get at the total number of those pursuing a vocational course, we must add to this number those who attended the technical and industrial schools and classes, of which there are many, in respect of which no Federal Board grant is made.³²

To show the thoroughness with which vocational training is pursued as an engine of occupational adjustment, it is worth while drawing attention to a special phase of the activities of the Federal Board. Not content with preparing fresh recruits for industry and trade, the Board has initiated a programme for the vocational rehabilitation of persons disabled in industry, so that they may compete successfully with their fellow-workers, resting on their ability rather than upon charity and tolerance, at a wage equal, if possible, to that which they earned at the time of the injury and with the same possibilities of advancement. An appropriation of a million dollars has been provided for this work, and a special division of the Board has been established, known as the Industrial Rehabilitation Division. The work of the Board is supplemented by the co-operation of a number of States, and the cases of several thousands of disabled persons were surveyed and the men

³² Report of the Committee on Industry and Trade : *Factors in Industrial and Commercial Efficiency*, page 256.

put in training and in a large number of cases enabled to enter once more a remunerative occupation.³³

Germany has been years ahead of the United States of America. "She has aimed definitely at the building up of a great industrial nation by the systematic training of all grades, from leaders to workmen. The State, the Municipality, the employed and the employer have all come to believe in education of all types including compulsory continuation education. The State and the parents have both adopted the long view, the former in looking forward to the ultimate value of the work of the schools and the latter in foregoing immediate wage returns of their children for future prospects. In Berlin, Munich, Leipzig and other towns, the organized efforts of the State and the Municipality are reaching every boy (and in a few cases every girl) in a way that would hardly be credited in England but for the fact that experienced officers have seen it in operation. Continued education in England still follows the plan of *laissez faire*, or go as you please. Germany possesses a national organization for definite national objects."³⁴

³³ The following examples will illustrate the kind of work done by this Division :—

"A young woman with double amputation of the legs above the knees who was trained to retouch photographic negatives is now as effective a worker as others in the same line of work, who have suffered no physical disability. In this case providing a suitable wheel chair, a course of instruction in an Arts School, and placement in a photographic establishment was real rehabilitation service. On the other hand, a young man who lost a leg and an arm needed only the loan of some capital to make him a successful merchant in a retail business. In this case discovering a person able to finance the project, securing his willingness to make the loan, and helping the disabled person to set up his own business, although required no educational programme, was nevertheless a high type of rehabilitation service."—*Fifth Annual Report of the Federal Board for Vocational Education*, 1921, page 316.

³⁴ Report on Trade and Technical Education in France and Germany.

The continuation schools started by Dr. Kerschensteiner at Munich are well-known, and Munich was even described as the Mecca of all school reformers of Europe and America. It is not necessary to describe in detail the ample provision that Germany has made for vocational education of the different grades, junior, middle and higher. Everyone knows how she has provided numerous trade schools, continuation schools, evening courses, and higher educational institutions known as Hochschule. The educational world in Germany was said, in 1914, to be in a state of intense vitality in the solution of the lower technical problems as the result of the thorough organization of the higher grade of institutions, and since the war there has been extensive development of compulsory day-continuation schools for boys, which in the more populous localities tend to be organized on vocational lines, occasionally with facilities for craft instruction. Continuation has been rapidly extended to new areas and to new classes of young persons and the Balfour Committee comment on "the contrast between the fragmentary beginnings of the system of continuation schools which this country can show and the wide and rapidly extending provision in Germany."³⁵

Although England can show a considerable number of junior technical schools and higher technical courses, and her special contribution to this branch of education, evening classes, in respect of quality, amount or degree of co-ordination with industry, she cannot be said to have advanced as far as either the United States of America or Germany. In fact, at the present time she may be said to be more remarkable for aspirations and plans than for achievement. It is paradoxical that although the Industrial Revolution made its appearance first in England, that country should be the last to adjust her educational methods to the new industrial environment.

The reasons are that education in England retained till

³⁵ Report of the Committee on Industry and Trade, *op. cit.*, page 257.

recently, if it does not do so even now, its aristocratic and classical traditions and educational reform was further complicated by controversies over the question of religious instruction in schools. Matthew Arnold's warning that the English system of Secondary education required urgent reform fell on deaf ears and although a bill for promotion of continuation schools was brought before the Parliament many years ago and Professor Sadler's valuable report on continuation schools was published in 1908, it was only during the war that the need for reform in the direction of vocational instruction came to be vividly realized. Mr. Fisher's Education Act was passed in 1918, and he laid emphasis on the fact that "the capital of a country does not consist in cash or paper, but in the brains and bodies of the people," and suggested that the country should economize in the human capital, its most precious possession, which had been too long neglected.³⁶

Some of the local authorities took up projects for continuation schools with some enthusiasm, but the Geddes Axe was fatal to such development, and this part of the Act, at any rate, has remained a dead letter. When the Labour Party came to power, the Prime Minister recognized the need for "economic and scientific dealing with human capital," but the Ministry was too short-lived for effective action. With the return of the Baldwin Ministry to power, and the advent of Lord Eustace Percy to the Board of Education, plans for reform were taken up in real earnest. Lord Eustace Percy's presidentship constitutes an epoch in the history of English education. He initiated valuable enquiries, which are certain to bear rich fruit, and his own introduction to the first pamphlet on Education for Industry and Commerce published by the Board, will be a *locus classicus* for a brilliant and comprehensive statement of the principles of educational reorganization. The work of the Board of Education has been supplemented by that of several Committees, such as the

³⁶ Parliamentary Debates, House of Commons, 19th April, 1917.

Hadow Committee on the Education of the Adolescent, the Malcolm Committee on the relation of Education to Industry and Trade, the Emmott Committee and the Ralfour Committee on Industry and Trade. The first of these Committees reported on the need for a comprehensive scheme of Secondary Education, with provision of different types of courses for children of different capacities, and the other three committees have all drawn attention to the pressing need for closer adjustment between the work of educational institutions and the requirements of industry and trade.

While the Board of Education and these several Committees have prepared the ground by their statement and discussion of the principles of reorganization, "a new and valuable technique has been worked out by the Ministry of Labour and a new chapter has been added to the Science of Industrial Education"³⁷ in the organization and working of industrial training centres. These have had a dual origin; they go back to the munition training establishments set up in 1916 to increase the supply of skilled machine workers for the war factories; when the war was over, and for some time before, the same organization with modifications was used to fit the human wreckage of war for some remunerative occupation. The experience gained in these ways is now being utilized in connection with the operation of the Unemployment Insurance Act of 1911, one of the provisions of which empowers the Insurance Officer to test the skill or knowledge of any claimant to benefit and, if necessary, to insist on and pay for a course of technical instruction as a condition of the receipt of unemployment benefit. This provision was not put into use till 1925 when the Ministry of Labour started some training experiments, reinforced by the technique of the industrial training acquired in the preceding years in connection with the two other schemes.

There are a number of training centres, where among the

³⁷ Davison : *The Unemployed*.

industries taught are elementary practical courses in the building trades, in furniture making, and in Engineering. The underlying idea is to prepare for employment in some skilled branch of almost any industry. The numbers trained at these centres are not very large, but it is a short step from training juvenile workers receiving unemployment benefit during periods of idleness to a realization of the need for a comprehensive scheme of training before their entry into employment. What was intended like the Montessori method as an expedient for meeting the needs of abnormal cases, may well become a normal feature of the economic and educational organization of the country.

The present educational organization in England may therefore be said to be on the eve of a great change. The changes will probably be in the following directions :—

- (1) With the proposed raising of the age for compulsory education to 15, the years between 11 and 15 will be spent in schools separated from the primary schools.
- (2) Secondary schools in which boys of 11 and over will be placed will offer scope for " Modern " studies with emphasis on practical work in the form of handicrafts and domestic subjects.
- (3) Day instruction will be given in continuation schools so that students may attend classes during working hours for the purpose, among other things, of qualifying themselves for the vocation in which they are engaged, instead of the present system of evening classes which compels persons to add to a full day's labour the burden of evening study.
- (4) Closer co-operation will be organized between leaders of Industry and Trade and educational administrators. As the Malcolm Committee have pointed out, unless employers get into touch with the educational system and state their requirements and hold out a

guarantee that the work of the schools so far as it is influenced by considerations of occupation, is not wasted, progress in the direction of vocational instruction will be impossible.³⁸

- (5) Institution of a National Council which will have within its purview education in relation to employment as well as questions of employment and unemployment, and will serve as a most valuable adviser to the Board of Education as well as to the Ministry of Labour.³⁹

The developments in Ireland are of even greater interest to us in India. The Irish Free State recently appointed a Commission to report on the system of technical education in the country in relation to the requirements of trade and industry,

³⁸ "During the last five or six years there has been a considerable increase in the amount of interest taken in technical education by persons holding responsible positions in industry and commerce as many of them have realized that it is not satisfactory to leave its planning almost entirely to persons and organizations with whom they have no contact. An interesting example of this is exhibited by the Cotton Industry which, about 10 years ago, established an association for the co-operative investigation of the scientific problems presented by the spinning of cotton yarns and the manufacturing and finishing of cotton cloth for a world market. Realizing that the Research Association might make discoveries which would have the effect of modifying profoundly the existing processes, its promoters got into touch with representatives of the greater Lancashire Education Authorities and established with them a joint committee for the purpose of enquiring what changes would be needed to bring the teaching given in textile schools into proper relation with modern conditions and requirements. The promoters of the Research Association for the Woollen and Worsted Industry have taken action on somewhat similar lines; and there are other examples of national industrial organizations devising and employing means for influencing the technical schools in the direction of making the instruction as suitable as possible for the circumstances of the industry."—Mr. A. Abbott, Chief Inspector of Technical Schools, at the International Congress on Commercial Education. *Education*, September 13, 1929.

³⁹ Cf. The recommendations of the Malcolm Committee on Education and Industry in their Second Report, pages 56—58.

including the main industry of Agriculture. The Commission presented in 1927 a very full and informing report, and its conclusions ought to be of special value for us, as India presents several features of economic and social resemblance to Ireland.⁴⁰

The Commission lays great stress on the need for securing a sound and uniform foundation for the system of technical education, which must be laid in the primary school, and holds that it is essential that the youth of the country should have completed in the sixth standard a definite minimum programme on which subsequent instruction can be based. This is followed by a recommendation for the introduction of continuation schools and classes, attendance at which, whole-time or part-time according to circumstances, should be compulsory up to the age of 16 years. The programme of these schools should be distinguished from that of technical schools and should take into account the special circumstances of town and country life. Technical education should start after the continuation-school period, and should take various forms, part-time or whole-time, day or evening classes, according to the specific conditions of apprenticeship in different trades.

It is realized by the Commission that the proposed schemes of continuation and technical education will involve considerable expenditure to the State as well as to the local authorities, but such expenditure is necessary for the raising of the level of the education of the people and for the development of trade and industry in the country. The expenditure will increase only gradually since the proposed schemes would be put into operation at first on a limited scale, and be extended and developed on the basis of the experience thus gained, so that a considerable period will elapse before they can be adopted generally throughout the country.

It is interesting to note that among the occupations for which

⁴⁰ Report of the Commission on Technical Education, Dublin, 1927.

they suggest special training are not merely Agriculture and the usual industries, but also hotel and restaurant work. This was taken up by the Commission for active consideration because good hotel service was essential to the successful development of a tourist traffic. The potency of this source of revenue to the country is illustrated by the Commission from estimates of income from tourists in different countries. France 100 millions, Italy 70 millions and Spain 50 millions. "The hotels of the country must be regarded as the guest houses of the nation." There was therefore a widespread need for a systematic training of stewards, cooks, waiters and waitresses, not only to render existing service more efficiently but also to open up a new avenue of employment. The lesson for India is obvious. India is becoming a great favourite of tourists, and probably would become much more so if improved facilities of travel were created in the shape of better hotel accommodation; and the people of the country would be richer if they engaged more than they do in this business. Incidentally improved methods to capture foreign tourists might also improve the indigenous hotel system, if we succeeded in creating the conviction that hotel service requires training no less than other occupations and does not come by the light of nature.

We now come to an examination of the system of education in India in the light of the foregoing observations. One would like to think that the system which has been in operation for more than half a century and has received a great deal of attention from Viceroys downward, offers, at any rate, the necessary foundations for a sound system of vocational training and at least contains the necessary elements already for development in that direction. Unhappily, the reverse is the case. An authoritative expression of opinion has recently been furnished by the Report of the Hartog Committee, while the necessary data are available in this Report as well as in the latest *Quinquennial Review of the Progress of Education in India*.

Like several other things in India, the system of education

contains both indigenous and imported elements. We have the survivals of the indigenous system in the Patasalas, Maktabas and Madrasas, in which education is entirely literary and some time theological. We know, however, that at least in theory, the educational system of ancient India had a vocational side, and not only do we possess a list of 64 Vidyas or branches of learning, which include, among others, proficiency in occupations like boat-making, enamelling, oil-extraction, metal work, etc., but we also find references in the old writings to great teachers in famous centres of learning like Takshasila and Benares, who taught not merely the three Vedas but also initiated pupils into the mysteries of agricultural and industrial arts. These, however, are matters of antiquarian interest, and the surviving indigenous institutions make no pretence to instruction for the purpose of any vocation except that of a priest or a teacher of languages. The number of these institutions has been dwindling, and this has been a matter of some concern to orientalists anxious to preserve the study of the Indian classical languages according to the time-honoured methods.

When we speak, therefore, of the Educational system of India, we think of the vast number of schools and colleges and the numerous Universities that have sprung up in the country as a result of the zeal of the Christian Missionaries as well as of the belief of Lord Macaulay in the efficacy of Western learning for the progress of the country. It is not necessary for my purpose either to summarize the statistical data relating to these institutions or to review their work, both of which have been done by the Hartog Committee with far greater authority than an individual can command. It is enough that I should merely summarize the unequivocal conclusions and the uncompromising condemnation by the Committee of the present system in respect of its inadequacy, misdirection and waste.

Primary Education, or "mass education" as the Committee prefer to call it, is essential for the construction of any super-

structure of general or vocational education in any country, and the Committee bring out the fact that the present organization of primary education is both inadequate and wasteful. Though by the terms of reference the Committee was precluded from examining the relations between the educational system and subsequent employment and discussing, in any detail, questions of professional or technical education, they have said a great deal that is relevant to the present purpose. They show clearly that whereas the main educational problem at the secondary stage should be to provide varied forms of training for life and employment suitable for large numbers of boys of varied attainments and circumstances, "all sections of the community with their different occupations, traditions and outlook, and with their different ambitions and aptitudes have little, if any, choice of the type of school to which they will send their children. In fact, the present type of High and Middle English School has established itself so strongly that other forms of education are opposed or mistrusted."⁴¹ They deplore the fact that "there is nothing corresponding to the exodus to the English Secondary Schools into either practical life or into vocational institutions."⁴² The inevitable result follows that a large number of boys are wasting time and money by following the existing courses in secondary classes.⁴³

It should be added, however, in fairness that some effort has been made in the direction of an alteration in the curricula by provision for vocational and manual instruction in the Secondary school system. Instruction is now provided in some kind of manual work such as wood work, carpentry, metal work, agriculture, tailoring, engraving, rattan work, spinning, book-binding, dyeing, sericulture, market-gardening, horticulture, mica work, smithy, coir work and printing. The figures supplied in the latest *Review of the Progress of Education in India* show that

⁴¹ *Report of the Harlog Committee*, page 104.

⁴² Do. do. page 104.

⁴³ Do. do. page 106.

there are 68 such institutions or centres of instruction in Madras, 22 in Bengal, 11 in Bihar and Orissa, 17 in Central Provinces, 3 in Assam and 9 in the United Provinces. These figures are sufficient to bear out the remark of the Hartog Committee that the Secondary system of education as a whole is not adopted to meet the varying needs of the people. Not only is the provision inadequate, but it is also only in a few cases even of this small group of centres of practical instruction that "instruction is imparted in such a manner and at such a stage of the school course that pupils are definitely encouraged, after receiving a suitable measure of general education, to leave school in order to take up some practical occupation or to receive technical education in special institutions."⁴⁴

Nor can it be said that the position is satisfactory with regard to the professedly technical or vocational institutions. The figures for 1926-27 summarized in the following table are illuminating, and show the inadequacy of the numbers that receive a technical or vocational education.

Kind of Institution	Number of Pupils		Total
	Boys	Girls	
Art Schools	1,964	...	1,964
Medical Schools	5,438	315	5,753
Engineering and Surveying Schools ...	1,635	...	1,635
Technical and Industrial Schools ...	20,784	3,753	24,537
Commercial Schools	6,381	324	6,705
Agricultural Schools	498	...	498
Medical Colleges	3,787	67	3,854
Engineering Colleges	2,009	...	2,009
Agricultural Colleges	798	...	798
Commerce Colleges	1,516	...	1,516
Forest Colleges	129	...	129
Veterinary Science Colleges ...	330	...	330
Total	45,269	4,459	49,728

⁴⁴ Report of the Hartog Committee, page 111.

In contrast with the above, the number of those that are preparing themselves for the two professions of Law and Teaching are 35,772 while all the others are equally open for clerical or teaching work. It is not only the inadequacy of the provision for vocational branches of education that calls for comment but also the lack of appreciation as to the place of such institutions in the educational organization of the country. "It is not yet realized in India that the industrial and the ordinary schools are complementary to each other in a properly co-ordinated educational system,"⁴⁵ and the Hartog Committee very properly condemn the tendency for the one to appear as the rival to the other and ridicule the attempt, as the inevitable result of this lack of co-ordination between the two types of schools, to establish what are called "Industrial Primary Schools."⁴⁶

On the plane of university education, the Committee draw attention to the well-known fact that "the universities and colleges of India are at present turning out a large number of graduates who cannot find employment,"⁴⁷ and with regard to the uncritical proposals for extension of technical training of the university standard, which is far more expensive than literary training, they feel bound to point out that "the training of technical experts only creates more unemployed unless there are industries to absorb them."⁴⁸ We all know of the sad fate of young men who have returned home after a laborious and expensive course in some branches of Technology only to find that there are no industries to absorb them.

It is perhaps not fair to be unduly harsh in our criticism of the Indian educational system. Not only was it a great experiment in the unknown, the pouring of new wine into old bottles, but it must also be said that till recently the problem of unemploy-

⁴⁵ *Report of the Hartog Committee*, page 111.

⁴⁶ Do. do. page 111, footnote.

⁴⁷ Do. do. page 143.

⁴⁸ Do. do. page 144.

ment was not so acute among the products of the schools and colleges. Further, it is only in the last twenty-five years or so that even Western countries have come to appreciate the need for an organized attempt to impart vocational education. The fact that the evil was not foreseen earlier and that other countries till recently have been in no better case than ourselves does not, of course, minimize the acuteness of the present crisis in Indian education. We cannot afford to be always a generation behind the Western nations.

How is India to set about the task of adjusting her educational programme to the requirements of her agriculture, industries and trade? "The practice is all too common," says a writer on industrial education, "of organizing certain types of industrial educational activities because of the general popularity of such activities. If industrial education is to play a part in training youth for its work in industry that is expected of it, it must be carefully planned. To plan adequately and properly, it is necessary to construct a programme of industrial education. Such a programme must be based upon a knowledge of facts gathered by disinterested agencies which are qualified to secure the data needed. The programme adopted must meet specific sets of conditions."⁴⁹ These words were written of the United States of America but they apply equally to India. There is a craving to be fashionable in matters educational as in others and a desire to imitate; and the result is the establishment of a few schools professing to give technical instruction or providing a few additional courses with what is termed a vocational bias. So long as these institutions and courses are not properly co-ordinated to the needs of the environment, are not supplied with adequate equipment and, above all, a competent staff is lacking, the experiments are bound to fail and cause waste and disappointment. One of the most suggestive chapters in the Report of the Indian Industrial

⁴⁹ Mays : *The Problem of Industrial Education*, page 409.

Commission draws a contrast between the factory industries and the cottage industries of India and proposes appropriate forms of training for either.⁵⁰ It seems to me that what is wanted at the present time is a vivid realization of this juxtaposition of the old and the new, and the obstinate survival of the old and its promise (or threat) to survive for years to come. Any scheme of industrial education that visualizes the industrial development of India only on factory lines will deal but incompletely with the facts of the situation, leaving a good deal of ground uncovered. The urgent need of the moment is a thorough survey of the position in the country, agricultural, industrial and commercial, with a forecast as to probable developments in the near future. Some work has already been done by several Commissions and Enquiries and the reports of the Indian Tariff Board supply much valuable data, but they are all disconnected and lack the synthetic vision that sees the Indian economic situation steadily and sees it whole. A satisfactory programme of industrial or vocational education can only be prepared on a national scale, but such a national programme must rest upon provincial and local surveys. Again, I must revert to my plea for a National Economic Commission or Board. I have suggested that it will be its task to view the Indian economic problem as a whole, organize investigations and make recommendations. This work by itself will offer the necessary data for formulating an All-India Scheme of Vocational Education, but there is no reason why one of the divisions of this Board should not specialize in questions relating to vocational education.

May I make a suggestion for the earnest consideration of my colleagues, the members of the Indian Economic Association? The mills of Government machinery grind slow and now that there is other grist in the mill, it is idle to expect that pontifical suggestions made from presidential chairs of Conferences will

⁵⁰ *Report of the Indian Industrial Commission, Chapter X.*

receive any attention. Is it not possible for this Association to organize local economic surveys through the Departments of Economics in the different Universities, and on the basis of the material thus gathered, to formulate conclusions and proposals on lines similar to the report on *England's Industrial Future* published by the British Liberal Party? There is much talent available in our Universities for such investigations and even greater scope for such investigations, and I hope our Association will focus the one on the other, and thus contribute to advance in economic practice like their colleagues in other parts of the world.

A survey of Indian economic conditions and a forecast of lines of development and change would enable us to remould the educational machinery and reframe and amplify the courses of instruction so as to fit in with the occupational requirements of the country. In the absence of such a guiding chart, any proposals for educational reform can only be guesswork and tentative, and the following broad conclusions are offered "without prejudice":—

- (i) Vocational Education and its financial requirements should in no manner be allowed to come into conflict with the imperative need for expansion and improvement of primary education. It will probably be necessary to organize a self-contained course of primary education of six years' duration.
- (ii) Till the primary course can be extended and consequent changes made, the middle stage of the Anglo-Vernacular course should precede any scheme of differentiation in studies. "The Examination at the end of this course should be graded school junction and clearing house by which means boys would be drafted into a line of study for which each appears to be most suited."⁵¹

⁵¹ *Quinquennial Review of the Progress of Education in the Punjab*, quoted by the Hartog Committee.

- (iii) The high school is the pivot of the situation, and the much needed differentiation in curricula should take place at this stage. Not only should the general course provide for instruction in subjects like handicrafts and domestic science, but there should be also alternative courses of a less academical type, such as Engineering or Commerce, in which while the vocational bias is strong, general education is not neglected.⁵² It is also desirable that as far as possible the alternatives should be available in the same institution, partly to get over the prejudice that clings to the realistic courses as intended for boys of lower capacity, and partly to permit transfers from one to the other.
- (iv) Technical schools which give instruction in the principles underlying the practice of any particular trade, and trade schools which prepare more directly for a given branch of industry, should be an integral part of the educational system. The Indian Industries' Commission expressed itself against the control of technical and industrial education by the Department of Public Instruction, but the difficulties it laid stress on are not insurmountable, while the benefits of a unified control are many.⁵³
- (v) In order that the proposed realistic courses may fulfil their purpose, educational administration should be in close touch with representatives of industry and trade as well as of labour.
- (vi) Technological education of the university standard will be wanted only to a small extent till our agriculture

⁵² Attention may be drawn to a very interesting pamphlet on "Alternative Courses in Secondary Education" published by the County Council of the West Riding of Yorkshire describing the courses in operation in its schools.

⁵³ *Report of the Indian Industries' Commission*, pages 136-137.

and industries develop considerably, and the immediate need is for such education of the Secondary school and diploma level.

- (vii) As a great part of agriculture and several branches of industry will continue to be on a small scale and will require recruits who have not merely to produce but also to sell, the training given in the vocational institutions should envisage not only the needs of the worker divorced from management but also of the artisan or the small proprietor who is a seller.
- (viii) Agriculture will continue to remain the most important single occupation, and the village the home of the great majority. Agricultural education will, therefore, claim prominence, and a rural bias should be given to instruction in the general schools in rural areas.
- (ix) No scheme of technical or vocational education should be undertaken without previous arrangements for an adequate supply of well-equipped teachers. There is reason to suspect that no small part of the waste which has attended a number of well-meant experiments in vocational education has been due to a failure to provide instructors who are technically competent and also conversant with the technique of teaching. Either the teacher has had no practical knowledge of the occupation in which case the training has been academical, or an artisan has been employed, and lacking both the equipment and the status of teachers of general subjects, has failed to command the interest and the respect of his pupils.
- (x) It is necessary that the vernacular should be the medium of instruction in all the high schools and the special institutions, a reform which is calculated to save wastage of effort.

Bernard Shaw makes one of his characters say that in the ideal polity, "work is play and play is life." In a similar vein our own Rabindranath Tagore laments that "our day of work is not our day of joy—for that we require a holiday; for, miserable that we are, we cannot find our holiday in our work." We may hope to approximate to this ideal state of things only if there is harmony between the worker and his duties. "I am persuaded," Telemachus is made to say, "that the great secret of Government is to distinguish the different characters of men, to select them for different purposes and allot each to the employment which is most suited to his talents: but I am still to learn how the characters are thus to be distinguished."⁵⁴ The problem stated is as old as Plato, and arises not merely in the domain of government but in industrial organization as well, and indeed in every walk of life. No one is equally suited either by ability or inclination for all occupations, nor do many possess the talents necessary to rise above the common level. If the human capital of the country is to be most effectively employed, it is necessary to determine what qualities are required by each separate occupation and how the possession of these qualities can most accurately be determined in the child. Otherwise, there will be social waste in a number of ways. Children may be given training leading to occupations for which they may have neither the ability nor the aptitude. When they actually enter the occupation for which they have received the preliminary training, misfits will naturally occur and there will be wastage either because there will be a poor level of work or a high rate of labour turnover. Nor is this all. There are numerous other evil consequences of misfits of which a long and uncomfortable list is given: neurotic disorders, delinquency, bad temper, malingering, creation of industrial discontent.⁵⁵ It is, therefore, necessary that any scheme of vocational education

⁵⁴ Fenelon's *Telemaque*. Hawkesworth's translation, quoted by Thomson, *A Modern Philosophy of Education*, page 219.

⁵⁵ C. S. Myers: *Industrial Psychology*, pages 168—170.

should be supplemented by measures to study the different aptitudes of children, and direct them to courses of study appropriate for the occupations towards which their abilities and aptitude point.

The problem would be easy of solution if we possessed two sets of data, namely, one relating to the essential qualities required in different occupations⁵⁶ and another to the qualities possessed by the individuals in the group we are dealing with. Then it would be indeed possible to provide each child with the type and amount of education from which he can benefit to the maximum extent both for himself and for the community, and when the course of instruction is complete, he can be directed to the appropriate niche in the economic organization. Unfortunately, we have not arrived at a stage when "each pupil can be tested for and rated in the entire range of important psychological qualities, and on the other hand each occupation can be analyzed into its elements and the psychological quality most important for each element determined. This would make available at any time a psychograph of each individual pupil for comparison with what may be termed the psychograph of his own particular occupation in which he may become interested."⁵⁷ It is further suggested that even this perhaps would not be adequate, because there is the further difficulty that "the great majority of occupational operations require the co-ordination of a person's separate mental functions. The possession of these abilities and the power to co-ordinate them are two different things."⁵⁸

Although it is true that thoroughly reliable results have not yet been obtained, valuable investigations have been carried out

⁵⁶ See the Report on "Occupation Analysis" published by the National Institute of Industrial Psychology; also the "Chart of Vocational Guidance and Education" in the *Journal of Industrial Psychology*, January 1929.

⁵⁷ Myers: *The Problem of Vocational Guidance*, page 239.

⁵⁸ Claparède: *Problems and Methods of Vocational Guidance*, page 51 (quoted by Myers).

and some are yet in progress, and it is now possible to sift people so far as temperamental fitness and possession of general ability in regard to a general group of occupations are concerned. Further with regard to special qualities required for a specific occupation it is at least possible to give negative advice. During the last war vocational tests were used on a large scale in America in selecting people for different jobs, and the results are claimed to have been highly satisfactory.

That these tests are not mere academical toys is amply proved by the investigations of the National Institute of Industrial Psychology as well as by those of the Industrial Fatigue Research Board. Results, in some cases yet incomplete, are available for three such investigations, and in all the three cases, the conclusion is fully warranted that children who took up work recommended to them show a much greater tendency to stay in the jobs than children who entered on jobs without advice. "Judged by after-histories of several children, those who entered occupations of the kind recommended have proved both efficient and contented in their work. As compared with their fellows, they are on an average in receipt of higher pay; they generally obtain promotion earlier; they have experienced fewer changes of situation and have incurred hardly a single dismissal between them. Over 80% declare themselves satisfied alike with the work they have taken and with their prospects and their pay. On the other hand, of those who obtained employment different from the kind advised, less than 40% are satisfied. Among the latter group nearly half dislike their work, and among the former only one dislikes it and that simply because it is not quite adequate with what was originally advised.⁵⁹ This was with regard to the investigation of 1926. The results of two subsequent investigations, one undertaken by the National Institute of Industrial Psychology, and the other by the Industrial Fatigue

⁵⁹ *A Study in Vocational Guidance*, page 98.

Research Board, both point in the same direction. The turn-over is much less among those who followed the Institute's advice and a larger number among them are satisfied with their situation.⁶⁰ It is true that in all these investigations the period of observation is not very long, and "absolutely convincing evidence of the value of the psychological study of the child in relation to the choice of a career can be gained, however, only from a 'follow-up' prolonged into adult life and perhaps even to middle age, but it is expected that a 'follow-up' covering nearly five years of occupational life will give all the objective evidence that may reasonably be required to establish a general value of work of this kind of society."⁶¹

Vocational tests are destined to play a prominent part in the social organization of the future. Already in parts of Germany, they are in active operation; in Hamburg "four-fifths of all the children leaving the school pass through the Vocational Advice Bureau, including children of all social classes, and a large number of these are given psychological tests to assist in the decision with regard to the occupation to be followed in after-life."⁶² It is a matter for satisfaction, therefore, that the last Indian Universities' Conference passed a resolution in favour of experiments in the application of psychological tests in the Universities and it is to be hoped that the recommendation will be taken up actively as the economic and social value of these tests cannot be exaggerated.⁶³

⁶⁰ "Evidence on the Value of Psychology applied to Vocational Guidance," *Journal of the National Institute of Industrial Psychology*, January, 1929.

⁶¹ "Evidence on the Value of Psychology applied to Vocational Guidance," *Journal of the National Institute of Industrial Psychology*, January, 1929, page 301.

⁶² Thomson : 1 *Modern Philosophy of Education*, page 237.

⁶³ I have had the advantage of discussing the draft of this section with my former colleague Dr. Gopalaswamy, Professor of Experimental Psychology, Mysore University, and I am also indebted to him for giving me access to recent literature on the subject.

When we have adjusted the educational system to suit the economic needs of the country and even devised suitable tests to select and distribute the pupils in our schools among the varied courses of instruction according to their ability and aptitude, our task is performed but in part. The adjustment of the educational system to the economic organization will still show a gap unless machinery is devised to direct pupils to appropriate places of employment when they leave the schools and colleges.⁶⁴

It is obvious that this is a big task, but the problem has to be faced, and it is being faced in several countries in the shape of After-Care Committees, Juvenile Employment Council, Vocational Counsellors and so on. The difficulties in the way of devising appropriate machinery are formidable enough in Western countries, and are certain to be more so in our country where business management and labour organizations have to be educated to appreciate the utility of organized vocational training and guidance. A very attractive and promising suggestion has been made by the Irish Commission on Technical Education. They point that "the establishment of Committees consisting of equal numbers of representatives of employers and of workers for the purpose of devising the most effective means of providing industry with skilled workers of maintaining an equitable balance between the juveniles and adults, of recruiting in such numbers as will enable an industry not only to meet the existing demands of the market but to develop, has become a common feature in modern industry."⁶⁵ They draw attention to the developments in the Union of South Africa and in Queensland, where Apprenticeship Committees have been instituted in the last few years. These

⁶⁴ "The provision of adequate facilities for training young persons in skilled trades is a problem that must be taken in conjunction with the problem of providing industry with an adequate number of competent workers and of providing competent workers with employment."—*Report of the Commission on Technical Education*, pages 71-72.

⁶⁵ *Report of the Commission on Technical Education*, page 72.

Committees wield very large powers; they regulate the entry into industry, the conditions under which apprentices are employed, their number and their education. The Commission hold that the principles underlying the South African and Queensland legislation offer the best method of dealing with the problem of industrial training and apprenticeship in the Irish Free State. Their proposals may be given *in extenso*:

“The Apprentice Committees should be appointed by the State and should consist of equal numbers of representatives of employers and of workers chosen in consultation with the organizations of employers and workers and should have an independent chairman. In addition, each Committee should have as members officers of the Department of Education and of the Department of Industry and Commerce. By this means a definite liaison would be established between the departments responsible respectively for the education of the worker and for the recruitment and development of industry, and the close association of these departments with representative industrial bodies should be the means of ensuring that no industry suffers from a shortage of trained workers.

“A joint body constituted on the lines referred to is the only body on whom it is possible to place the burden of solving the problems connected with the education of workers for any special trade or industry. The Minister for Education would through this joint body have first-hand information on the views of the industry itself as to the plans proposed for technical training in that industry. The actual courses to be adopted would be a matter for the Minister for Education but his decision would not be given until the joint body had made representations to him.”⁶⁶

It is not suggested that our country is ripe for such Committees, except perhaps in a few industrial areas, but the principle underlying is one that may be adopted with great benefit to the

community. Local authorities may establish committees with less comprehensive powers, whose main function it would be to bring the educational authorities into close touch with the direction and volume of employment in the neighbourhood, and such committees would be federated into Provincial Committees, which would come into relations with an All-India organization.

Any comprehensive scheme of vocational training and guidance can be undertaken only by the State and rightly so, because "the fitting equipment of the child for the battle of life is a national concern in the interest not merely of the individual, but also of the State (H. Fisher)."⁶⁷ This is only an addition, a necessary addition, to the comprehensive programme of social insurance that the modern State has undertaken in recent years with a readiness that would make Bentham turn in his grave. Critics are not lacking in England who object to this extension of Government activities both on theoretical and financial grounds. In India, we are more fortunately situated. There is not the same reluctance to extend the sphere of State action, accustomed as we have been to State organization of education. In fact the situation is paradoxical; the popular urge is for a more vigorous policy of expansion with a greater readiness for larger expenditure on education, before which the Government is reluctantly and slowly yielding ground. The objections raised are financial. The plea is put forward that the revenues are inelastic, while the expenditure on development and welfare activities is unlimited. The difficulties of the position cannot be lightly dismissed, but it is hard to believe that a Government which has been able to finance numerous frontier expeditions, find crores to build a new capital on the grave of an old one, and engage in currency adventures that cost the tax-payer as many crores, without landing itself in bankruptcy is altogether without resources, if the willingness is there, for a national scheme of vocational education. If only the

Government would show a desire to respond to the need of the hour and indicate its earnestness by substantial retrenchments, the country on its side would not be unwilling to face the necessity for additional taxation to supplement the resources of the Government to carry out a great measure of educational reform.

Financial objections, whether advanced by a lukewarm Government, or interested sections of the community hostile to democratization of education, do not really bear examination. It is not to be assumed that countries like Germany and the United States of America, the latter of which country proposes to double the expenditure on education, are inferior to us in financial wisdom. Expenditure on education can easily be met by reduction of public and private extravagance. The limited taxable capacity of a community is sometimes used as a stalking-horse, but as Sir Josiah Stamp has pointed out, the answer to the question whether taxable capacity has been reached or passed depends on the reasons for, or the subjects upon, which the money is to be spent. Expenditure on education ought to be really regarded as an investment. "Ill-health and ignorance are an economic burden which no society can afford to carry once it has learned how to lighten it. . . . It is possible for the personnel as well as the material equipment of industry to be undercapitalized, and a nation which has the courage to invest generously in its children saves in the strictest economic sense, more capital than the most parsimonious community which ever lived with its eyes on the Stock Exchange. . . . from a purely economic standpoint, the most important part of the capital of a country consists of human beings. Wealth applied to improving their physical and intellectual attainments is the most remunerative of all investments since it adds to that particular type of productive power on which the ability to use all other natural advantages and to overcome natural disadvantages, ultimately depends."⁶⁸

⁶⁸ *Secondary Education for All*, page 144: Compare "It has been well said that if all the material wealth in the world were destroyed by an earthquake,

“Industrial and Vocational Education,” it was observed recently, “were looked upon as the education particularly suitable to the needs of the destitute, the mentally deficient, and the delinquent. These stigmata are now wearing off.”⁶⁹ One hopes so, and that it is not necessary to take seriously at this time of the day the conventional criticism that culture is going to be sacrificed for utilitarian efficiency. The caste mentality dies hard, and the sphere of education is no exception. There is, of course, no real conflict of interests between culture and usefulness, for in Kerchensteiner’s happy epigram, “on the way to the ideal man stands the useful man.” It is even possible to carry the war into the camp of the enemy, and argue that a course of general education, specially of the type now in vogue, does not always turn out a man of culture. It should also be realized that “there is a co-ordination of senses and thought and also a reciprocal influence between brain activity and material creative activity.”⁷⁰ Hence it was that Ruskin insisted that “all youths of whatever rank ought to learn some manual trade thoroughly, for it is quite wonderful how a man’s views of life are cleared by the attainment of the capacity of doing any one thing well with his hands and arms.” St. Benedict and Plato are allies, not rivals.

To conclude. India is on the threshold of great changes, social and political. These changes require a spiritual content and an economic basis, the most persistent twin interests of man-

leaving only the land, knowledge and food enough to sustain life till the next harvest, mankind would in a generation or two be nearly as prosperous as before; but if accumulated knowledge were destroyed, while the material wealth remained several thousand years might be needed to recover the lost ground.”—Marshall, ‘The Social Possibilities of Economic Chivalry.’ *Economic Journal*, March 1907.

⁶⁹ Dr. Malherbe in his paper on “Education and the Poor White,” read to the British Association at Cape Town, 1929.

⁷⁰ Whitehead : *The Aims of Education and Other Essays*, p. 78,

kind. A country that has produced in recent years a Vivekananda, a Tagore, a Gandhi, is not likely to lack spiritual leadership. It is in the realm of economic change and educational adjustment that the country requires guidance, and it is my earnest conviction that no more competent guide can be found than a triple alliance between the educationist, the psychologist and the economist.

REPORT OF DISCUSSIONS ON PAPERS

DISCUSSION ON INDIAN PUBLIC FINANCE: IMPERIAL VS. PROVINCIAL FINANCE

PAPERS BY MESSRS. T. K. SHAHANI (Ahmadabad), P. J. THOMAS
(Madras), AND R. M. JOSHI (Bombay)

Professor Vakil of Bombay said that Messrs. Shahani and Joshi were thinking more of the nation-building departments in order to further the interests of the masses, whereas Mr. Thomas was thinking of the strength of the central government. Analysing the situation from the different points of view, it appeared that the emphasis on the respective functions of the various speakers was the cause of the difference of opinion. They could not allow the central government to weaken, nor could they allow the provincial requirements to suffer. He thought it was difficult to work out the scheme of a representative board as suggested by Mr. Thomas. If any such board was asked to distribute funds between the central government and the provincial governments there would be a tug of war, and there would be always a third party which would be in a better position to pull, before they could get the best division of funds. Assuming for the moment that they gave excise to the central government and the personal income-tax to the provinces, it would generally mean that the central government, comparatively speaking, would be in greater difficulties than the provinces. If the general desire for prohibition was going to persist, then they should take it that excise was no longer going to be an item of revenue, but was going to be an item of expenditure in course of time. Whenever they should have a scheme of prohibition, they would have to keep up large establishments in order to see that illicit liquor was not

manufactured. From that point of view, if the Government of India was asked to administer the subject of excise, it would mean an expenditure for it, though the agency might be provincial. So far as customs were concerned, they knew that sooner or later the Indian States were legitimately going to get some share in the customs revenue in one form or another. The Government of India was now getting 50 crores customs revenue which was contributed to a large extent by the native states in one form or another. They saw signs of the acceptance of the claim of native states in some form or other in the impending constitutional changes.

Railways were now another source of revenue to the central government and they contributed three to four crores to the general revenues. From the point of view of the industrial development of the country for which they were all anxious the railway surpluses must go. If the railway rates were so adjusted that there were no surpluses from railways, and if the surpluses were to be handed over by way of reduction of rates to industries which were most in need of it, then there would be another falling off of three to four crores of revenue to the central government. If excise was going to be an item of expenditure, if customs revenue was to go to the native states, if railways surpluses were to go for industrial development, then the central government would be bankrupt under the scheme of Mr. Joshi. He was only trying to appreciate the difficulties of the central government, agreeing as he did substantially with the scheme of Mr. Joshi. In all democratic governments they had to choose between two evils—reduced expenditure and increased taxation. Even if they got provincial autonomy they were not going to get independence as the Congress demanded. On that ground the military budget might not be so reduced as to allow the central government to be in a balanced position. His view, therefore, was that the central government should have recourse to additional taxation by way of tobacco duties or something else.

Prof. Karve of Poona said that in the first place he failed to see that there were any principles of federal finance or any general practice of federal finance which must be accepted by any country which was on the road to development on federal lines. He rather felt that in the matter of financial adjustment and financial reform as in the matter of general development of a nation every nation had got to take its own present circumstances into consideration, the present difficulties of the provinces and the central government into consideration and frame its policy accordingly so as not to depart to any great extent from those general principles; but in the main to satisfy immediate requirements and to solve the immediate difficulties that might face the provinces on the one hand and the central government on the other. From that standpoint he felt that the transfer of excise from the provincial governments to the central government was not to be thought of. Though it was true on the basis of general principles that where customs duties were levied mostly for protection, or on articles which were the staples for important industries in the country, it was sound theory and sound practice in such cases to place both customs and excise in the hands of one and the same government. They had to take into consideration the fact that excise was collected from people who made the most work for the provincial governments, both in the departments of police and justice and also in a number of other departments. Moreover, when they wanted to make way for excise they wanted the police to be on the scene to work out the system of restrictive excise to a successful end, and therefore the working out of the system of restrictive excise was closely connected with the working of a number of provincial departments, and for that reason he felt that the excise revenue should go to the provincial governments.

Above everything else, they wanted to so reform the present finances that it would not be harmful to the provinces. They started on the basis that the present financial arrangement was

not suitable for the development of provincial nation-building departments. The resources in the provinces were found to be inelastic and the practical requirements of provinces on the road to financial solvency could not be solved by the proposed transfer of excise and a portion of the income-tax to the central government. For these reasons he wanted excise to continue a provincial subject.

The suggestion for the formation of a national fund put forward by Mr. Thomas was not acceptable to him, for two reasons. They were partly political and partly economic. The first consideration was the one that arose out of the views expressed by Prof. Shahani. There could not be a clean slate in regard to this matter particularly, because in our own country we have an evolutionary process and a gradual development towards the formation from a centralised government of provincial units which might be self-sufficing. If we had a central fund on which the provinces would have to depend, then to that extent the control of the provincial legislatures over their own expenditure would be substantially reduced. For that reason and also due to the experience they had had during the years preceding the present reorganisation of the finances, they would be entirely ill-advised to go in for the scheme of a general fund. Therefore, he would support the view put forward by Prof. Joshi that the provinces should have the whole of the personal income-tax and that the super-tax and the tax on corporations should go to the central government. He also felt that in India they would not be justified in ignoring the requirements of the backward provinces. Out of the railway surpluses and also out of the occasional surpluses, which they hoped that in future more patriotic and more efficient finance members might earn for this country, they might establish some fund out of which the needs of the backward provinces might be met.

Prof. C. D. Thompson said that there was no reform of taxation in India which he more desired than the reform of handing over

the land revenue to the local authorities, that is to the municipalities and the district boards. He would like to do that as far as possible, but at the same time he could not quite see how the provinces with both their legs cut off could go about hopping on one of the central government's legs. If excise was to go, it seemed to him that some other source of income must be found for the provinces, and they could not get on simply by trying to redistribute their present taxes in some other way. By doing so somebody would be badly hit and it seemed to him that they should have a new source of income. The conference should not forget what their commissioner had told them on the opening day, that the opinion of their association would be far more weighty if they had some kind of unanimity. It seemed to him that they must come out boldly and say that there must be taxes on agricultural incomes, that there must be inheritance duties, and that there must be taxes on city land comparable to the taxation on rural land. If they had these things, he believed there would be money enough and that taxation would be far more equitable. Then the division would not be so difficult. With regard to division he was still in favour of the division of excise both in theory and practice. He believed that the present excise duty ought to be divided into two parts, as was suggested by Sir Charles Todhunter at Mysore,—the true excise duty to be given to the central government and the local license part of it to be given to the local governments. But he did not think that the central government would advance towards prohibition more rapidly than the provinces. If excise was given to the central government, prohibition would come more slowly. If the excise licenses remained with local governments, they would have to determine as to how fast they could move towards prohibition. It would be possible then to give the more easily administered inheritance duties to the provinces rather than the income-tax. If necessary and possible, he would not be averse to giving a part of the income-tax to the provinces. From administrative consi-

derations, he thought it would be better that the provinces should have inheritance duties, and if necessary they might also be given the income-tax on land when they had handed over the land revenue to the local authorities. When these duties were handed over to the municipalities and to the district boards, they would also have far heavier responsibilities to discharge. Much of the expenditure incurred by the provinces would then be met by the local authorities. If they wanted to go on with all their nation-building activities, he thought it was necessary that they should equalise their taxation by introducing these additional taxes and then the problem would not be difficult.

There was one other tax which we should have—the tax on the unearned land value. If we just kept in mind the inheritance duty, the income-tax on high agricultural incomes, the tax on the unearned increment of land value, the separation of the excise duty into its two parts, the excise proper and the local licenses—these were the lines along which he would like tax reform. Excise might not disappear altogether. It was suggested by the last speaker that there might be an excise on tobacco, on playing cards, matches, amusements and the like, but probably such taxes should belong to the central government.

Prof. Doraiswami Iyengar of Madras said that before the Meston Settlement the Government of India proceeded in an empirical way in the matter of levying taxation and distributing it for expenditure. They could not but proceed on those lines in view of the fact that the area of the country was large and the data were not adequate. The Meston Committee, instead of trying to give a twist to what might be considered to be an empirical method of tax levying, merely suggested what might be considered a financial line of separation, and he did not think it was scientific. They were simply carried away by the idea of a financial ‘clean-cut’ accompanying an administrative ‘clean-cut.’ Without taking into account the complicated character of their economic and financial organisation, the Meston Committee began to apply

one single formula to the conditions of provinces which differed to a very considerable extent from each other. The recommendations of the Meston Committee did not simplify matters, but complicated them still further with the result that the country was dazed by its idea of a financial clean-cut. It was good that there ought to be that kind of separation as far as possible. But then those who were for separation and 'clean-cut' went further. They quoted it as an article of faith and therein was the trouble for Bombay and Bengal. Bombay wanted the whole of the income-tax in the province for itself and that was very largely due to the fact that this question of the separation of resources between the provincial governments and the central government was considered a fetish. Why should there be this entire separation? He did not find a single country in the world which could adopt scientific methods of apportioning its resources. Even the advanced countries had found it impossible to carry this absolute financial separation into execution. The taxation in India suffered from various defects. For instance, indirect taxation furnished a very large proportion of the total taxation. They had to bring order into this scheme of taxation. The services that the central government had to discharge for all the provinces being common in character, every tax-payer, according to the general principles of taxation, should make a contribution to the central exchequer. It might be according to the proportionate system, each citizen making a contribution according to the canons of his general ability. They had accepted the position that incomes from agriculture need not make a contribution to the expenditure of the central government. He wanted light to be thrown upon this problem as to whether their discussion of the resources of the central government and the provincial governments ought not to be related to this fundamental question of whether the scheme that was now working conformed to that important principle that every citizen should according to his ability make a contribution to the central government.

Mr. B. G. Bhatnagar of Allahabad said that in the Paper he had read in 1925 at the Benares session he had subjected the existing arrangement to the first principles of finance and had come to the conclusion that the existing system did satisfy them to a very large extent. The principle that he took as his test was the nature of the functions assigned to the central government and the nature of the functions assigned to the provincial governments. From that they would find that what they had been calling elasticity was the capacity of the sources of revenue to expand or contract according to the needs of the moment. If they used elasticity in that sense, then they would find greater need for it in the central government than in the provincial governments. Provincial governments had got certain items of expenditure which were expansive in character. They required a well-thought-out programme which was to be completed in 10 or 20 years. They required certain sources of income which would be yielding continuously increasing income, but they did not require any income which could be increased at a moment's notice. That kind of income was only required in the central government. There was the salt tax in the central government and by a slight increase in the rate they could secure crores for the central government. In the provinces, on the other hand, we do not find any source of income of that type and there was no need for it. The existing sources of revenue of the provincial governments satisfied one of the academic or theoretical tests. He agreed with Prof. Shahani that there should be readjustment in one direction, that direction being the transfer of income-tax to the provincial governments and excise to the central government. In the provincial governments they had all the development departments for which funds were needed. If they had the income-tax, which was a direct tax, they could lay out a programme before the provincial legislature and bring home to the people why funds were needed. It was this one particular argument which had succeeded in convincing him of the

desirability of transferring the income-tax to the provinces. At the same time he was convinced that excise should go to the central government.

They had not been paying enough attention to one source of income which had not been exploited in the country, and unless they exploited that source of income no programme could be developed. This source of income was loans. They should utilise loan funds for constructive development purposes, and meet interest charges from current income.

Mr. Gyan Chand said that the greatest drawback of the Montagu-Chelmsford report was the principle of segregation, which did not exist in any country in the world. It had become increasingly difficult on account of the integration of economic life, and it had made the problems of federal finance very different from what they had been. If we wanted to find the solution of our problems in India we ought not to go to America, which stood for a principle of federalism which was antiquated, but we ought to go to Germany, Austria, and Russia, where the principles of federal finance were being worked out with very great ability and efficiency. In these countries the principle of segregation had been abandoned, and in America and Australia also, where things were more difficult on account of political prejudices, this principle was being abandoned.

The second point which he wished to bring before them was that the central administration of taxation was becoming increasingly important. In Australia they were having central administration of taxation. That meant that the income-tax had got to be administered by the central government, and that the excise and inheritance taxes had also got to be administered by the central government. Then the only way by which states could be placed in funds was to give them grants out of a consolidated fund. In Germany, Russia, and Austria grants had a very important place in the system of finance. If segregation was impossible, then there was the necessity of centralization of administration so far

as taxes were concerned. If they took statistics of provincial finances and central finances from 1876 onwards they would find that certain provinces were on the top and others at the bottom. On national grounds levelling up was desirable, but since the inequalities were due to blunders committed by the central government in the past, it was due to the provinces that something should be done to redress these grievances. There was no other way of redressing them except by giving grants to the provinces. Some method had to be adopted by which grants were to be given by the central government to the provincial governments for redressing their grievances.

They wanted additional taxation. They all wished that military expenditure might be reduced but it was not practical politics to expect that it would be substantially reduced in the near future. The income-tax and export and import duties would be in the hands of the central government. How could we make it possible for the central government to make grants to provincial governments? The important consideration had got to be borne in mind that provincial autonomy should not be imperilled in any way. It was possible to give grants in such a way that the provinces should not suffer from the evils of over-centralization. That the provinces might have free scope for the development of functions which they would have to discharge was desirable, but this could be only done by giving grants.

Dr. Beni Prasad (Allahabad) said that the last speech made him feel that they must be clear on one fundamental point. * Were they thinking of a future federal Government of India, or a future unitary Government of India? It seemed to him that what the last speaker thought of as a new conception of federalism as exemplified in the working of political institutions of Germany, Austria, and Russia was merely a return to unitarianism. Germany was practically a unitary country, and Austria was even a more unitary country, and it was only by courtesy that they could call it a federal country. Similarly Russia was not a

federal country. He quite recognised that there was that name of the Union of Soviet Republics, but it was all directed by one group of people from Moscow. Then they were told that under this new conception of federalism there was no segregation of revenues or powers but only a separation of finances. Really in federal countries like the U.S.A., Canada, or Australia what happened was that for certain purposes the same source was tapped by different authorities, but there was clear demarkation of revenues. This was still open to them in the future Government of India. The income-tax must always be a federal affair because so far as possible that tax ought to be equalised. He entirely agreed that there should be an inheritance tax. This ought to be uniform among all the provinces and therefore it was necessary that all such socialistic taxation should be managed by the central legislature.

Mr. Gyan Chand seemed to treat provinces very much like local boards,—municipalities and district boards. The system of grants could hardly work in the relations of the central and the provincial governments. Who was going to make the grants and on what principle? The difficulty was that if these grants were to be made by the central legislature or the central executive, then that central legislature would consist of representatives from various provinces and every year they would have a wrangle over the distribution of these doles. Were they going to invoke the help of the constitution which would be above the legislature and above the executive for this purpose? Either it would be part of the constitution or it would not. If it was part of the constitution it became too rigid, and if it were not, it opened the way for perpetual wrangles.

Dr. Radha Kamal Mukerjee (Lucknow) said they could not be unitarians and there was no doubt that federalism was to be their political goal,—whether it would be of the Russian type or of the American type they were not concerned. If federalism was to be accepted as their political aspiration, surely a federal

authority on democratic basis entrusted with the task of the right apportionment of the sources was the direction towards which they must move. The word 'doles' had a bad smell about it. The central government was bending its knees to organise public opinion in the provinces. So it was bound to happen that the old mendicant attitude for doles would be superseded and they would have the active participation of the different provinces and states, all with equal rights, in a federal body which would apportion the sources of expenditure, but the principles of such apportionment would have to be considered. On these considerations the grants would be impartially considered in a federal board of finance like that contemplated by Prof. Thomas. There was no doubt there was a growing need for funds for what are called the nation-building services in the provincial governments. But there was no use on the other hand in denying the other fact that the federal expenditure for the development of railways, or of commercial aviation, or scientific agriculture was also bound to increase in the near future. They could not entrust such All-India developments to sources which were either weakening or which were bound to be extinguished, if there was sound public opinion focussed on the system of finance. For instance, excise was a weakening source, but they were to arouse a provincial instead of an All-India conscience for prohibition.

But equally there was the feeling that they should have other sources of revenue as for instance the inheritance tax, taxes in various forms on unearned incomes, taxes on recreations, amusements, and even advertisements. Only the other day the U.P. Literacy Committee proposed to the Legislative Council a tax on recreations. Their expenditure was expanding not merely in the provinces, but also in the central government. There must be an increase of expenditure with regard to the nation-building departments and they should have free sources of taxation for financial adjustment, not merely in the provinces, but also in the central government.

Prof. Gurmukh Singh of Benares said that the first thing he wanted to put before the conference was that the subject of finance should be dealt with from the practical standpoint rather than from the theoretical point of view. The question had got to be looked at from the point of view of functions that they allotted to the various governments. The next point which he wanted to mention was that as far as his study of federal constitutions went he did not find that there was that tendency to which Prof. Gyan Chand referred. The same source was tapped by different authorities, rather than that the federal government was being given more and more, and that grants were given to the provincial or state governments. The conditions in Germany were unfortunately very peculiar because as a result of the war the German Government had to pay large amounts of indemnities to the various allied governments. It was for this reason that the Weimar constitution placed all the resources at the disposal of the federal government for the time being. The question in India was whether there should be a sharp division of sources of revenue between the federal or the central government and the state or provincial governments or not. Every one would agree that if they could possibly maintain a sharp division it would be better. It would be complicating the situation less, if they had special sources of revenue for the provincial governments and special sources of revenue for the central government. He personally felt that there would have to be some division to a certain extent. There would have to be a certain division in the case of the income-tax, and a large part of excise would go to the central government but the licensing fees would remain with the provincial governments. Whatever they might do it would certainly necessitate the imposition of fresh taxation. Unless and until new sources of taxation were devised they would not be able to undertake all their schemes. Loans were absolutely necessary for development purposes. Then there was the question of giving grants and yet retaining provincial autonomy, and it was a very

fundamental question if such a scheme were at all to be considered. From his study of constitutions he had come to think that it was a very difficult affair. Responsible government did mean control of finances by the legislature, and if the more important sources of income had got to come from the central government, where was the control of provincial governments over their sources of revenue? He personally thought that the most important sources should be under the control of the provincial legislatures and they should not get them from outside.

Prof. Kaji (Bombay) said that the income-tax on personal incomes should be provincial, but he did not see how or why the excise should be handed over to the central government. If prohibition was their goal, the central government would not in any way help them to attain it. It would be only provincial governments which would take them nearer that goal. If they wanted prohibition excise should be a provincial subject and not a central subject. They ought to be concerned more with the provinces, because the provinces were doing development work, and if India was to develop it was the provinces that ought to have enough revenue, and not the central government.

Dr. Pant (Lucknow) said that they were not discussing what type of government India was to have in future, and maintained that it was possible that clean-cut financial arrangements could be made between the provincial governments on the one hand and the central government on the other. One point that struck him was that during the discussions no speaker had touched the point of leakage. A large amount of wastage was going on especially in the local bodies. His own experience was that the Lucknow municipal board wasted six annas out of every rupee that it collected. The country had reached the taxable limit and no new sources could be tapped, and if they were tapped they would spell disaster to the people. The central and the provincial governments had to learn the lesson that they had to cut their coat according to their cloth. No speaker had so far suggested

that there was a very great need for drastic retrenchment and proper expenditure both in the central government and in the provincial governments. We should not care what happens to the central government, which should look after its own affairs. We are entirely concerned with provincial governments, which are in charge of the nation-building activities, which are being starved for lack of funds.

The central government spent a very large amount of its money on unproductive items and it ought to revise its expenditure. They had not considered the large amounts that the local bodies were piling up by taking loans without any intention of paying them back. The local bodies always expected that the government would never claim the amounts back. The government always made this a ground for interfering with the management of local bodies. He thought that more money should be provided for the nation-building departments under the provincial governments, than for the unproductive expenditure of the central government.

Prof. V. G. Kale of Poona said that in the provinces they had a certain amount of influence and power though they had not got provincial autonomy. In the central government they had no financial power at all and to his mind this was the reason why they wanted the central government to look after its own affairs. They were more concerned with the nation-building departments of the provincial governments. He thought we ought to visualise a system of things where we would get power even in the central government. There was a good deal of room for retrenchment and economy in the military expenditure of the Government of India. Secondly, we were all in favour of prohibition and that had been made abundantly clear. He remarked that some people were in favour of the transfer of excise to the central government in order to bring pressure to bear upon that government to reduce the military expenditure. But as practical statesmen and as practical economists they had to see whether

that could be done in future or not. Even in the central government their representatives were likely in the future to be in the same position as they were in the provincial governments to-day. Therefore the problem of Indian finances was very closely associated with the problem of India's constitutional development. They could not separate the two things. It all depended on what functions were to be performed in the central government and it also depended upon who was going to control the expenditures of the central government. It, as he expected in the very near future, some real power were to be placed in the hands of the representatives of the people in the central government, it would be a practical proposition to reduce military expenditure to a certain extent.

Another point was that there was nothing like separation associated with clear division. That idea was given prominence because it was intended to give some sort of autonomy only in the provinces, and nothing was to be done with regard to the central government. Therefore, those who were in favour of complete separation were in favour of full provincial autonomy. They ought to expect not only provincial autonomy, but also more power in the hands of the central government, and consequently they would be able to control both sources of revenue. He did not think there was anything wrong in dividing the sources of revenue provided the autonomy of the provinces and the power of the local legislatures was not curtailed. These two things could be reconciled. So far as excise was concerned some sort of arrangement could be made by means of which the two sources could be divided. Similarly with regard to the income-tax they could make an arrangement. It could be divided so that the needs of the various provinces could be met.

It was very important that the question of the backward provinces should be considered. At the time of the Montagu-Chelmsford reforms also that point was taken into consideration and it was laid down that no province should start upon its new

career with a deficit budget. Something of that kind would have to be done even now and therefore the so-called doles might be necessary for a time. The objection to the doles was that the provincial governments did not know what they were getting and for what purposes the amounts ought to be expended. The objection was to the uncertainty about the doles. If that difficulty could be got over there ought to be no objection to the so-called doles. Therefore, the position of the backward provinces would have to be met in that way.

With regard to loans he was of the opinion that a country which wanted to develop its resources would have to rely upon loans. But they must not forget the fact that they were putting off the expenditure only for a few years more, because ultimately loans would have to be repaid. That fact ought not to be ignored. A loan was no exemption from payment and ultimately it would have to be repaid together with interest. He thought there was more harmony than difference of opinion in the discussion.

Mr. Shahani replying to the debate on his Paper, said that segregation of sources of income was absolutely necessary for the provincial governments as separate from the central government. The citizen gave his allegiance to both the governments and the functions were separated. If there was to be a division of income in any department, who was to be the determining authority? If the sources of income were absolutely separate between the central government and the provinces, then, and then only, could there be the strict responsibility of the executive to the legislature. This is what the Bombay Government called political consideration. Then only could there be a development in the direction of parliamentary responsible government. Under such an arrangement there would be no doles or subsidies to provinces.

There would be a clean-cut arrangement, a segregation of sources of income, and no division of heads at all. Talk of prohibition in the provinces was mere camouflage. When from one side came in the smuggler, from the other side came in the illicit

distiller, and from the third side came in the importer of foreign liquor, what prohibition could there be? Let them give it to the central government, and let it be arranged. Drink was a vice pertaining to all and then the Indian States had got to be considered.

As regards the income-tax as a sufficiently elastic source of income in the provinces, he had emphasized the importance of landlord incomes, that huge untaxed income of the landlords, without which the income-tax question was a fraud.

Prof. Thomas replying to the debate on his Paper, said he did not disagree with the previous speaker as regards the separation of revenue resources in the country. But when it came to a matter of completely water-tight compartments he disagreed with him. He did not think there was any precedent or possibility of it. In the United States of America various taxes were being raised as central taxes and grants-in-aid were being given to the various departments and he did not think it weakened the federal idea at all. Everywhere they found a tendency towards greater control by popular representatives in the central government. He was a federalist like anybody else. To set up a central board for the distribution of finances would not weaken the federal idea at all, just as the loans board and such other boards were not making Australia less a federation. He was not at all for keeping up armaments, but the question was whether they were in a position to reduce the military expenditure immediately. They required more and more coordinating agencies, and development services could only be properly coordinated by the central government. He was as much interested in the provincial governments as anybody else, but that was no reason why they should not give the same kind of resources to the central government.

Prof. Joshi replying to the debate on his Paper, said that if 19 crores of excise revenue were transferred to the central government, and if they told that government that it was a dwindling source of revenue, and that, if public opinion compelled them.

they should adopt prohibition within 10, 15 or 20 years, and that within that period they ought to reduce their military expenditure, the central government would be in no way worse. Now the provincial governments always considered the revenue aspect of the prohibition question and therefore they could not rightly consider the social aspects of prohibition. That was why he wanted to transfer excise to the central government and leave it to them not to disturb their budgetary arrangements for the present, but to continue their policy and adjust their expenditure in accordance with its diminution after some years. He thought the railway surplus was no real surplus at all. Much had been spent on railways which was not to be found in the capital account at all. The railway surplus of to-day was a misnomer. If they calculated the interest charges, at the rates at which loans were raised, they would get a very startling total of 300 crores, which the taxpayers had spent all these years, before they could discover a method of getting a commercial return. The interest on 300 crores would come to 15 crores, and then they had also to consider the proportion of the working expenses to gross receipts. There was not a great deal of room for retrenchment in this direction except in the B. B. & C. I. Railway so far as he was aware.

DISCUSSION ON THE THEORY OF DISTRIBUTION

PAPER BY MR. K. B. MADIYAVA OF MYSORE

Mr. Shastri of Benares said that the question of distribution was associated with the question of value. In all books of economics the first topic was production and distribution came at the end and they were led to think that distribution was more or less dependent upon the factors of production. Value depends upon the equilibrium of supply and demand, but at the same time we cannot forget that value depends upon effective demand which depends to a great extent upon distribution of income. If income was more evenly distributed the relative value of things would be altered, and the nature of economic organisation would alter relative values. As in Rumania, so also in Russia and India most people produced only such commodities as were consumed by themselves or by others in the same country, and they were not producing many commercial commodities for the market. Great Britain was mainly an industrial country and was able to support a large population because of the exchange that now prevailed. If people in India consumed what they produced little surplus would be left to go out of the country and in that case there would be greater economic welfare. At present industrial countries were better off than agricultural countries, but it was because of the unequal distribution of capital. If there was a more equal distribution of capital, he was sure that the relative value of things would alter and that agricultural countries like India would be better off.

Mr. Gyan Chaud said the mover had pointed out that in point of distribution an element of social surplus was becoming more and more important. It was not possible to measure the contribution which each individual made to the total social dividend, and along with that one had also to come to the conclusion that social organisation and social heredity played a very important part in determining the share of the personal distribution of wealth. Social heredity brought with it the question of social status and social psychology, and therefore in the income of each one of them there was an element of social surplus. They earned an income on account of the working of a particular social system, and if they wanted to bring about equal distribution of wealth they should shift their ground, and try to bring about distribution corresponding to the needs of the individual. Family allowances, discriminative taxation, and maternity benefits,—all these new reforms which had been introduced were an unconscious definition of the fact that it was not possible to measure the contribution that each individual made to the total income of the community. Therefore, in personal distribution they must shift their ground, and say that “each according to the needs” ought to be the best way of distribution. If social surplus was more important than individual contribution, then all these various devices that were being adopted were calculated to bring about a different distribution of wealth. How far they could go in the present circumstances in bringing about a different distribution of wealth was a very difficult question and it must depend upon the circumstances of each case. The whole world seemed to be driven towards this goal, and if they adopted it in its entirety, they would be able to establish the order of things which Russians were working for. What Clay called an “authoritative element” in distribution had got to play a much larger part in the distribution of wealth, and the goal in view must be, “from each according to his capacity and to each according to his needs.” In personal distribution individual contribution did not matter so

much. That could be done through an organised agency like the state or corporation. Collective organised effort was necessary in order to bring about a redistribution of wealth, and that seemed to him to be the modern trend of theory as well as practice.

Dr. Radha Kamal Mukerjee said that the distribution of wealth in modern capitalist society was governed by two fundamental institutions,—the institution of private property and the institution of traditions and customs of competition. The new methods introduced in the laws relating to private property and regarding the rule of competition in modern social life were changing, and these changes had gone on *pari passu* with changes in the social and the civic conscience. They were on the eve of important changes in these fields, changes which were themselves reacting, not merely upon the modification of institutions which governed wealth, but even the very values which underlay such distribution. In agricultural countries the distribution of income was governed mainly by the system of communal landholding, and by a crop of communal practices and usages relating to land and the use of water for purposes of agriculture. In all agricultural countries the institution of village common lands, as well as the existence of village common funds, and a variety of communal practices and usages in relation to common village expenditure served to a great extent in removing the causes of the disparity of wealth and of opportunities amongst the masses of peasantry. The distribution of agricultural wealth in this country was left to a large extent to customary law and to communal traditions. The whole question, whether they should have peasant proprietorship, state landlordism, occupancy status, or free mortgage and sale, would be determined by the consideration of what form of distribution of interest in land was most calculated at present to bring about the most effective and constructive farming. He agreed that the economist, moralist, statesman and the educator must all solve this problem.

Mr. C. D. Thompson first of all complimented Prof. Madhava

on his Paper and said that one or two points seemed of special interest to him. Recent economists and in particular Wicksteed and Clarke believed that whenever each agent of production received the marginal net product of his labour the whole product would be consumed. The whole product would be exactly, justly, and equitably distributed if everyone received his marginal net product. But going a little further in mathematics, and investigating the possible productive functions, it was found that this is not at all certain. It might be possible for everybody to receive his marginal net product and still there would be a surplus left over to be divided, and so there would always be some scope for politics, which would have to come in and decide how the surplus was going to be divided. They had come to realise that the marginal net product must be the maximum and could not be the minimum, that there was a minimum which was represented by the short period supply prices, and that there was some sort of long period cost of production around which the actual remuneration of the factors was likely to fluctuate.

The other point which interested him was the question of productivity and incentive. Mr. Gyan Chand expected that they should take from each according to his capacity and give to each according to his wants. He personally could not accept this. They were going in the direction of more equal division. Professor Pigou had proved that when wealth was unequal they should give to the poor to stimulate productive efficiency on their part; and he had shown abundantly that such transfers by means of progressive taxation would increase economic welfare. But this did not mean they should take from every one to the limit of his capacity, and then give to some one to the limit of his wants. There was danger that they might decrease the total while increasing the shares or increase the proportion without at the same time increasing the portion.

The greatest problem was how much incentive was necessary to get men to produce, and the question was whether a man like

Ford had really produced that much. He considered that the men who were the first in an industry received prizes out of all proportion to their ability, but nevertheless the captains of industry got part of that proportion out of their ability. They had the courage, enterprise, and all the other intellectual abilities necessary for that enterprise. The question was whether the portion of all the little people would not be less if these captains of industry had not been in existence. It was said that Ford had actually created for society far more than he had taken. Mathematicians could show them where to look for the solution of the question. There must always be some adjustment of the surplus, and they did not yet know how far they could go in handing over wealth from the rich to the poor without entirely injuring the whole economic efficiency of society.

Mr. Madhava replying to the debate, said that the theory of Marshall as regards marginal productivity received modification almost every moment because it was so difficult to arrive at the proper figure. In fact, society had provided checks to the overdomination of the theory of marginal productivity by institutions like trade unions. The factor of inheritance was most important and they received differential benefits through inheritance, and he thought there might be a case even in the economic field for continuity of policy in regard to matters of inheritance. He would not level up or level down the factor of inheritance, but that would take them on deeper into another subject. The inducement for saving and for accumulation of capital for future production was quite essential and no theory of distribution could neglect that element.

DISCUSSION ON THE THEORY OF BARTER AND EXCHANGE

PAPER BY MR. K. B. SAHA OF DACCA

Mr. K. B. Madhava said that the price was the rate of exchange of one utility for another utility, though concept of the denominator had differed from time to time. Marshall did make a certain amount of confusion and it was the economists of Italy who later clarified the ideas that were current at that time. The difficulty of Marshall in fact was to distinguish between the more or less stable equilibrium that was attained in money exchanges, and the unstable or dynamic equilibrium that would correspond to the case of barter. The second contribution that had evaporated was the distinction between the theory of barter and the theory of money exchanges, which might be called a queer conception between the rival and complementary exchanges. The theory of barter was the theory of rival commodities. The product that was being given away was more or less for the moment at the time of the exchange a certain kind of rival commodity, but the time had come to make no distinction between this rival commodity and a complementary commodity, namely money, which was a common denominator and possessed the necessary unit of utility. Secondly, it was really the confusion between the complementary and rival products and the instability of equilibria that led Marshall to think that there was some difference in regard to the prices as determined by barter and as determined by exchange.

DISCUSSION ON THE CONCEPT OF THE REPRESENTATIVE FIRM

PAPER BY MR. AMIYA KUMAR DAS-GUPTA OF DACCA

Mr. B. G. Bhatnagar said he had always believed that there was absolutely no need for the introduction of the idea of "representative firm," in addition to the large number of terms that we have already got for confusing students and the average person while studying economics. But that seemed to be the favourite method by which most of the students of economics who claimed some originality seemed to justify their existence. There was the representative firm and there was the marginal firm and in economics each one used the term in his own way. The reason why Marshall wanted to introduce the concept of the representative firm was that in the long period they would have the marginal firm which would have no profits at all, a representative firm being one which was neither just on the margin making no profits nor at the top making huge profits, a firm which was just somewhere in the middle making average profits. They would not really get much help from this conception of a representative firm in the determination of prices in the long period of a certain commodity. The idea of a representative firm was a thoroughly superfluous idea and it did not help them in getting over the difficulty of making average prices equal to the expenses of production.

Prof. Thomas said that he did not agree that the representative firm was useless. In all sciences they required some technical concepts which would guide them in keeping in mind the general nature of business, and particularly in industries where they had firms of different grades, and there was certainly

a necessity for having before them some idea of average firms. There were average firms which were neither struggling for existence nor thriving with large profits. The marginal cost of a representative firm was nearer the price of a commodity than when they spoke of a marginal firm. As a matter of fact the whole theory of value required to be overhauled in view of certain discoveries made recently. The idea of charging what the market would bear was much more valuable than the idea of marginal firm. In the case of most articles the prices did not go up to the cost of production of the marginal firm and the real factor was what the market would bear. He thought that the conception of a representative firm would help us in finding the cost of production of an average producer. In fact the price was determined more by the capacity of the market to bear it, than by the cost of the representative firm or the marginal firm.

Mr. Doraiswamy Iyengar said they should consider why this notion had been introduced and of what help it had been to students of economics. They would find commodities the production of which would be governed by laws of increasing returns. In the case of constant returns there was something specific. In a marginal firm there was the marginal cost of production to which the prices tended to be equal. There was thus something specific,—namely the marginal cost of production,—in respect of commodities the production of which would be under conditions of diminishing returns. Their difficulty started when they had to determine the prices of commodities that obeyed the laws of increasing returns. When they talked of the law of increasing returns they might be induced to say that prices tended to be equivalent to the cost of production of the most efficient firm. But that was not right, for they would find in the world that, even where the law of increasing returns operated, different firms were managed with different kinds of ability and yet lived together, so that there was nothing parallel to the marginal cost of production which helped them with reference to a diminishing cost of industry. That was

why the representative firm concept had been brought into the field, not for merely overloading economics, but with a view to meeting a specific difficulty. There it was that this was useful, because if for instance in the case of commodities that obeyed the law of increasing returns one firm alone produced commodities for the whole world, then they would have monopoly. But as a matter of fact in various industries like iron and steel they had different firms. Then the question arose as to the cost of which kind of firm the price of a commodity approximated. If they said that the price approximated to the cost of the most efficient firm then there was no place for other firms. Therefore with a view to give some help to the understanding of the causes that operate in respect of the prices of commodities of that description, Marshall felt that an abstract concept was necessary which they could utilise in all descriptions. He found that actually taking into account the conditions of different firms there were a few firms which obeyed the law of increasing returns and a few struggling firms which did not make any profit and which at the first touch of difficulty went to the wall. Therefore with a view to help forward the determination of the prices of such commodities a concept like that of a representative firm managed with average ability was enlisted. If monopoly alone were to exist, they need not require a representative firm concept.

31st December.

Mr. Thompson said that economic theory had not yet completely digested the idea of decreasing cost. From the time of Malthus every one of them had based almost all their theories on diminishing returns and increasing cost. Although Senior made a very strong point of increasing returns and believed that decreasing cost was almost always possible, yet the other economists went on in same way, and along with him based their theory of value on constant increasing costs. Recently economic theory had been having a very bad attack of colic in trying to digest the idea of

the decreasing cost. Marshall made the first attempt to digest it in his discussion on monopoly. He discussed completely various cases of decreasing cost and the point to be noted was that he used average cost in discussing monopoly, whereas in discussing competition he used marginal cost. Carver wanted to separate entirely the laws of diminishing and increasing returns. He wanted to make them mean one thing and the laws of increasing and decreasing economies to mean another thing. Davenport had tried to get around it by not saying anything about increasing cost or returns and decreasing cost or returns. He spoke of the laws of most profitable proportions and the laws of most profitable size. He again divided both of these into static and dynamic laws, and laws of monopoly and competition. Pigou had made a good many efforts to uphold those ideas of Marshall which were most attacked. He had not quite upheld the idea of consumer's surplus, but he had tried to support all the conclusions that Marshall came to by the use of this concept, and in his last edition he had tried to uphold the idea of a representative firm by his new concept of the equilibrium firm, which, however, differed a little from Marshall's representative firm, in that it was not so much a typical firm or an average firm. Pigou had changed the chapter in which he dealt with these ideas in each edition and they should honour a man who was brave enough to say that he had made a mistake and to admit the criticism of his younger contemporaries. Pigou now wished to stop talking about decreasing or increasing average cost or decreasing or increasing marginal cost and to introduce what he calls decreasing and increasing supply prices. This supply price follows the average cost until this reaches its minimum and then follows the marginal cost. It seemed to him, Mr. Thompson went on, that perhaps part of the trouble was that practically in all industries the cost was first decreasing up to a certain point and was then increasing. Pigou had said that the tendency was for the cost always to be at the lowest point. So in this way he had rehabilitated the idea of the

representative firm. He did not quite see how there could be equilibrium between one representative consumer and one representative firm, as suggested by the writer of the Paper, because one representative firm would surely supply for at least 10 or 12 representative consumers.

DISCUSSION ON MARKETING

PAPERS BY MESSRS. S. G. BERI (DHAWAR) AND
K. C. RAMAKRISHNAN (MADRAS)

Mr. B. P. Mukerji of Lucknow said that Mr. Beri had recounted all the sins of which the middleman was capable and had given them a fairly accurate statement of the defects of their marketing organisation. The market committees looked after the regulation of prices and weights and they were exercising a certain amount of check over the people who were carrying on these transactions,—the buyers and sellers. The market committees were merely a sort of negative control but something more than mere negative control was necessary to improve the marketing organisation of their country. Mr. Beri had very well pointed out that the agriculturist required finance, not only at the time of marketing, but also some time before. His investigation in Bihar also led him to the same conclusion. They should give the agriculturist the necessary finance during the cultivating season as well as at the time of marketing. That was done to a certain extent by the co-operative sales societies, but their operations were on a very small scale and they were not sure of the loyalty of their members. Efficient management was at a discount, and they were too small to appoint or retain good managers. They should push on this co-operative principle on a wider scale. These societies, small as they were, were not capable of carrying on their work on a wider scale by appointing efficient management. He was, therefore, in favour of co-operative marketing organisations spread over a definitely large area, carrying on business in one kind of produce or a number of products, like multiple sales societies. The whole village organisation could be made the unit

of the marketing organisation. The representatives of each village might form the committee of management of this marketing organisation. They might modify the law to a certain extent, and infuse some amount of compulsion to strengthen the hands of these co-operative organisations, by laying down a law on the same lines as Ca'ada, South Africa, and Queensland in Australia had done,—either by a five years' contract with the members, or a contract which was enforceable in law, or by enacting some law by which no sale would be valid unless it was done through some organisation. This law was already in existence in certain parts of South Africa. No man was allowed to carry his head-loads on motor lorries or boats, which did not bear a certificate of the association as regards the weight, quality, and price of the goods. If they could have some such regulation in this country, that would be more effective than mere control of markets, or control through these co-operative societies constituted as they were. These village market organisations could be linked with the wider market by means of district organisations and divisional organisations. The district organisations could retain efficient managers, who would engage correspondents to study different markets all over the country. If they had such an organisation, a village organisation would be in touch with the remotest organisation in India and would not suffer by any defect in the organisation due to inefficiency.

Principal Tannan said that in the first place the co-operative sales societies found it difficult to get that quantity of produce, for which they could engage efficient salesmen or managers; and therefore the first difficulty was that unless they got an adequate number of villagers or cultivators, bringing their produce or selling their produce to them, it was not possible for them to carry on their work properly, and that depended upon the loyalty of members. The loyalty of members was not likely to come into existence unless people were better educated. Really, the difficulty was that the cultivators were not educated. They did not

realise the advantages of joining these co-operative sales societies, and therefore they were not in a position to get a large number of people selling their produce through them. They should certainly educate the people and try to make them join such co-operative unions and societies.

Another difficulty standing in their way was that there were not proper arrangements for the grading of the produce. The villager did not know to which particular grade his produce belonged and therefore he was left to the mercy of the buyer, and it was the buyer, who was efficient and capable, that had the advantage. If they tried to make proper arrangements for the grading of produce, he thought the co-operative sales unions would work better.

The third difficulty which stood in the way of the sale of the produce of the agriculturist was that there were no proper warehouses. If the villager brought his produce into the market he had got to sell it that very day or the following day. If the number of buyers was small or there were none, he had no arrangement by which he could warehouse his produce and go back and wait for some weeks. What they wanted was warehouses which were licensed and which were able to give receipts.

There were certain other difficulties also. For instance, there was the difficulty with regard to the financing of these sales societies, but he was not sure whether this difficulty was so great as Mr. Beri seemed to imagine. There was no doubt that there was some little difficulty, but the solution of the difficulty was not the one which had been put forward by Mr. Beri,—that part of the Government cash balances should be handed over to the district co-operative banks so that they might be able to invest them in the manner in which he had suggested. A good many who put forward suggestions of this kind really did not know how far the Government were in a position to let those balances be invested. They had not an idea that those balances were

kept by the Government in the nature of cash reserves. What they might perhaps suggest was that if they had a reserve bank of India, it might be prepared to lend certain amounts on comparatively low rates of interest to the provincial banks or district banks, and in that way, of course, sales societies might help with the necessary finances.

Prof. Kaji said that the conditions revealed in the Paper applied to a greater part of India and he complimented the author on giving them a good type of paper. Even admitting his contention that a free man and a forced man were more or less alike he thought there was similarity in this, that both were equally exploited. The marketing problem was a problem that needed immediate attention and the subject was so vast that it was impossible for him to speak on all the points. The difficulties of the sales societies had been pointed out, and Mr. Beri had said that the loyalty of the members was essential. Sales organisations could enforce that members must sell through those organisations. This was being done in Guzerat, and they found that loyalty had become almost automatic. When there was a penalty which could be enforced by arbitration, there they would prevent any inducement to a man to go outside. They made the man stick to the society, for otherwise he would be worse off by having to pay the penalty.

As regards a multiple sale society, he thought they could not think of expert management when they were dabbling in several products. A general purpose society was possible, but the co-operative department must encourage sales societies, and if the promoters convinced the registrar and the department that it would be in their interest to have such a society, he did not think it would be prevented. There were 60,000 or 70,000 co-operative societies in India, but they had left marketing in the background. It would have been wiser for them if they had from the beginning of this century started on the path of co-operative marketing, rather than on the path of co-operative

credit, which by itself had not done the good that they wanted co-operation to do for the agriculturist.

He wanted to emphasize the question of management. He certainly did not agree with Principal Tannan, that the Government need not give those funds which Mr. Beri referred to. While Government took away the money from the village through the post office savings banks and in other ways, there was no reason why they should not release that money in improving marketing facilities in villages. He thought that the improvement of the godown facilities was one of the chief things that they should concentrate upon. Unless there were enough houses to store the goods they would not be able to enter the paths of co-operative sales as they wanted to do.

Mr. B. G. Bhatnagar said he also joined Mr. Kaji in congratulating the writers of the two papers, as they had given them some idea of the actual conditions prevailing in certain parts of India with which they were familiar. That really added to their stock of information about certain parts of the country. If they noted the developments of various kinds of co-operative societies in the different provinces, they would find that Bombay had made the greatest progress in the development of co-operative sales. They could not really have co-operative sales societies of any form of organisation for sale in a locality where they had not started the specialisation of a crop. Wherever they had a highly developed cotton tract in Bombay, or a highly developed wheat tract in the Punjab, there they would find possibilities for good co-operative sales. It was certainly very desirable to develop co-operative sales wherever there was a possibility for it. But all enthusiasts must keep it in their minds that it was not in every nook and corner of the country that it was possible. In Bengal they would find that they had very well succeeded in organising co-operative credit societies for milk in the city of Calcutta in particular. After all, sales societies and co-operative organisations of a particular type were developing in those localities where

there was any scope for them, and they had to keep in mind that good old adage that necessity is the mother of invention.

Mr. Doraiswami Iyengar said that both the papers had revealed certain interesting points. As regards the prices of commodities that the agriculturist received for his produce there had been a good deal of exaggeration that he did not get good prices and that the middleman took away a lot of his money. As regards groundnuts or paddy in Madras Presidency, on account of the great competition of middlemen and on account of the operations of big houses the agriculturists got in a fair way good prices, and especially during the last few years the agriculturists in many cases acted wisely in having disposed of the produce at the very start owing to fluctuations in prices. On account of the large number of middlemen and the great competition between traders, there was not such difficulty in getting good prices. Mr. Kaji had pointed out the difference between the free villager and the forced villager, his point being that the villager generally was indebted, but that his suffering was due to the heavy interest that he had to pay. The speaker thought that the question of indebtedness had to be dissociated from the question of prices that the villager got for his commodities.

As regards the question whether co-operative credit should have been started at all he thought there was a certain amount of confusion. Without co-operative credit and without relieving the agriculturist of his indebtedness he did not think that anything like co-operative marketing had any chance. Even as it was, their complaint was that co-operative credit had not been as successful as it should have been. One was bound up with the other. As a matter of fact, the papers read to-day had revealed this fact that they could not solve the problem of co-operative marketing by this method. The fact that co-operative credit had not succeeded as much as it should have succeeded was due to the fact that the question of communications and the question of education were closely bound up with it.

As regards Government balances, Mr. Beri had pointed out that they required financial aid. As regards that point the work done by the Egyptian Government had been quoted. One felt that private enterprise was not quite equal to the occasion and therefore Government aid of some sort was necessary. In co-operative sales societies, whether it was wheat or groundnuts, that which was placed in their hands was very soon turned into cash and consequently the amount of funds required would not be very great. He did not think that modern opinion would approve of that kind of rigid attitude towards Government balances, though there was a limit to be drawn in respect of such funds.

Mr. Beri replying to the debate, said it had been objected to by Principal Tannon that Government cash balances could not be spent in this fashion. The speaker was of the opinion that in the first place about 25 per cent of the cash balances collected in the district should as a rule suffice for the purpose in view. Secondly, he did not think that Government cash balances which were collected very largely at the harvest season were required to be disbursed immediately for governmental expenditure. As a matter of fact, the money went into the Imperial Bank and was later on spent in the course of the year. At present the Imperial Bank got the use of government money free of charge and he did not see why it should not be given to sales societies as suggested by certain speakers. They could have resort to the system of treasury bills which had now become an integral part of the financial position of the Government of India. Prof. Kaji had referred to the superfluity of legislation to enforce the level of prices. But it had been found that this law of penalty was honoured more in the breach than in the observance, and the speaker was convinced that legislation on this point was more or less essential. As regards multiple societies, he said he had clearly indicated his preference to societies confined to one kind of produce. He would very much like a cotton sales society, but

otherwise he would welcome a society disposing of the different types of produce though a particular product might be predominant. He had indicated his clear preference for the regulated open markets outside villages, as it was here that the cultivator had the best chance to obtain the best possible price for his produce.

Mr. Ramakrishnan replying denied that he had stated that the free and the forced villager were equally exploited. He had only pointed out that there were a number of exceptional cases where borrowers were undoubtedly exploited. He agreed with Mr. Kaji on the question of compulsory loyalty of members. In South Africa, Australia, and Canada, if 60 per cent of the farmers in a place were prepared to sell their produce through co-operative societies, the remaining 40 per cent would also be forced to do the same. It might be against orthodox co-operation but they had to revise their notions of co-operation. The tendency in recent times was to have for the so-called cotton sales society certain side activities, and it was not in his opinion altogether impossible to have a few other activities.

DISCUSSION ON LOCAL FINANCE

PAPER BY MR. AKSHOY KUMAR GHOSAL OF DACCA

Mr. Joshi: Was there really anything which differentiated the local administrative machinery in Bengal from other provinces? He could not imagine that there was such a great deal of difference as to necessitate a detailed description of that local machinery. In this country they could not consider local finance by itself. As their financial arrangements stood, the question of local finance was closely intertwined with the question of the finances of the province and the country. If they tried to take up that question separately and tried to suggest remedies for increasing the local resources, he was afraid they were likely to get into a muddle and that was what the paper illustrated.

He thought that additional taxation might be necessary. But they should remember their experience during the last ten years as to what happened in provinces whenever Ministers had made efforts to suggest additional taxation. If they recommended additional taxation for people in villages, it was not going to be practical politics. Whatever additional taxation they suggested, let them not suggest as Ministers in provinces had done, that it was because the local bodies refused to have the local cess of an anna in the rupee increased to two annas, three annas, or four annas, that the local bodies could not get money and that unless people learnt to tax themselves for their own benefit there could be no progress. They were not going to get anything more out of these suggestions for increasing local cesses. Agricultural income had to be taxed but it would be made part of the general income and the authority which would take the tax on personal income would also take this tax as well.

Mr. Gyan Chand said that Mr. Joshi's point of view was that unless land revenue was transferred to local bodies, local bodies should not think of taxation. They knew that this was impracticable under the circumstances and therefore they had got to think of some alternative way of developing the fiscal resources of municipalities and district boards. Mr. Ghosal had discussed the question of the transfer of certain obligations from the local bodies to the provincial governments and he had dismissed this proposal because the finances of the local bodies were capable of great extension. It appeared to him that it would be necessary, not in the interests of the local bodies, but in the interests of the nation, to transfer one obligation which was now imposed on local bodies, and that was primary education. The Hartog Committee had suggested that the central government should take greater interest in education and it appeared to him that they would have to go very much further and make the central government responsible for the development of compulsory primary education within a very short time. Therefore, to that extent they would have to relieve the local bodies of the obligation that was imposed upon them on financing primary education. The machinery would have to be devised for doing it through the provincial governments and funds would have to be found by the central government. He thought the suggestion for an additional income-tax was not practicable on account of the fact that the centralised administration of income-tax was necessary, the income-tax being needed for various other purposes. Therefore, they had to think of some other alternative resource. Municipalities in the Punjab, the United Provinces, and Bombay had got octroi and terminal taxes. In Bengal and Madras there was no octroi and it appeared to him to be necessary to introduce a turnover tax in municipalities. Germany got 17 per cent of its total revenue from the turnover tax and was handing over a very large portion of that to local bodies. He also thought there should be the betterment tax in municipalities. As regards the

district boards there was very great scope for the imposition of a labour-tax in village rural organisations and he thought this would carry them a long way in developing the resources of village organisations.

Prof. Thompson said he would not care to have so many taxes and especially he would not have any tax which interfered with business. For that reason he preferred not to have even a sales tax. He thought it was possible to get along with some sort of land-tax, which was pre-eminently suitable for local taxation. This would not tax all the classes as the reader of the paper desired; but if it was thought morally desirable to tax other classes besides the landlord classes, he would be strongly in favour of having a poll tax which could be paid in terms of labour at the option of the payer, who could pay either in money or by means of labour. By this he did not mean forced labour as it used to be. It would not be taken by any official at his sweet will, but it would be by arrangement at the time when the farmers did not find other work to do for their crops. They would also be taught all the advantages of co-operative labour, on the roads, and on other public works, that would be directly beneficial to the village itself, so that they would learn not only the obligation of paying a tax but they would also learn spontaneous co-operation for the good of the village, which they might use in a hundred other ways.

Dr. Pant said they had no fresh resources at their disposal at this juncture and it was impossible to suggest any new method of raising money by taxation. The improvement trusts had spent large amounts on unproductive works with the result that they had saddled the province with a very large amount of expenditure. The prices of landed property had gone down very considerably for that reason. He did not agree with Mr. Ghosal that double income-tax could be raised. People who got Rs. 2,000 a year in cities found it very difficult to balance their budgets. He thought that without raising new taxes municipalities should

balance their budgets, if they strictly cut down all leakages as far as possible. For some time to come municipalities should depend upon loans from provincial governments and should give up this idea that they had innumerable sources of income at their disposal and that they could raise a fresh tax whenever they liked.

Mr. Ghosal replying, said that Mr. Joshi's criticism of his paper was more negative than positive in character, his only point being that additional taxation was unpopular. Taxation was always unpopular and they could never tax people with their willing consent. As regards the tax on agricultural income he thought that the proceeds should go to local bodies. He had no objection to the levy of a poll tax in rural areas except for the fact that it had a bad odour about it. He did not want double income-tax, but wanted only a percentage to go to the local bodies over and above what was left to the central government.

DISCUSSION ON THE OPTIMUM THEORY OF POPULATION

PAPERS BY DR. RADHA KAMAL MUKERJEE (Lucknow) AND
MR. A. K. NILAKANTA SASTRI (Chidambaram)

Mr. Sastri (Benares) said that the question before them had two aspects, the general aspect and its application to the conditions of India. Their main business was to understand the two conceptions of the Malthusian theory and the optimum. The optimumists remarked that the Malthusian theory was more or less of a fodder conception. The optimum theory was only a refinement of the Malthusian theory and as far as the practical politics of the theory went it did not help them to a very great extent. It took into consideration a dynamic state of affairs and to calculate the optimum was very difficult. He wished to know if Dr. Mukerjee had put forward his own formula. (Dr. Mukerjee: Yes, it is my own formula.) Dalton and others had found it very difficult to calculate the optimum. In its application to Indian conditions they started with the opinion that India was overpopulated. This notion was not correct. It was the factors of production and co-operation that they should lay more stress upon and not the amount of population, and they should bear in mind that the factor of co-operation was wanting in India, and not so much the method of curtailing population by means of birth control and such other methods.

Dr. Pant said it was fortunate for them that Darwin's theory had been exploded. The population problem was a problem pulsating with life and they ought to discuss it from a practical standpoint. He was surprised to hear that India was not overpopulated. The ratio between wealth and the people in this

country was not healthy and it was up to them to maintain a healthy ratio between the two. There were three methods by which they could do it—restriction of numbers, increasing wealth, and the combination of the two. The contraceptive methods were very costly and were known only to the middle classes. If any cheaper method could be found it should be taught to the villagers. If they at the same time made an attempt to raise the standard of life of the villagers, they would find the optimum level very soon reached.

Mr. B. G. Bhatnagar said that he had always felt a great deal of fascination for the writings and speeches of his friend Dr. Radha Kamal Mukerjee. He found that his paper consisted of two parts: (1) a resumé of the investigations and results obtained of certain biological writers and (2) the application of those results to the population conditions in certain parts of the Gangetic valley. He failed to see how an increase in productivity alone could not produce optimum conditions. One would have expected that Dr. Mukerjee after making close investigation of the conditions of the Gangetic plain would either support or criticise the statement made so long ago. But here the statement was repeated without any statistical evidence to support it.

Mr. K. B. Madhava said that the subject of the paper intruded upon several correlated subjects. In 1927 both in Europe and America considerable attention was given to this problem by biologists and others. One population conference held at Geneva had several discussions on the subject and considered the question in all its aspects and it was only fair to say that they should not look at the subject from a parochial or narrow point of view and come to conclusions which might be correct or incorrect. Any matter either in regard to increasing productivity, or variations in regard to standard of living, or the method of increase or control had got to be considered in relation to migrational problems and above all in relation to the standard of living. Everywhere the optimum was only a relative concept. It was a question of

certain factors on the one side balancing certain other factors on the other. At certain times they felt the equilibrium had been on one side or the other side of the optimum with reference to their own standard of living. Consequently considerable light had yet to be thrown on the subject. There was one more matter of personal interest. Any gentleman interested in the subject might get into correspondence which would be very worth while with various individuals like Margaret Sanger.

In regard to age limits he thought they could not place much reliance on them particularly in reference to Indian conditions. What they were actually concerned with was the working portion of life and the consuming period of life. He did not believe in either Sundbärg or his paper in regard to the age limits that had been taken. If an organism was going to live for a few years or thousands of years how could they apply these data at all? It must have the same relation to the life span of the species with which they were concerned and it must be expressed in terms of certain concepts rather than numerical figures. The true measure of satisfaction or optimum was in regard to the expectation of life and he believed in the use of the expectation of life. They had also to take into account social value and the social utilities. He did not think it was worth their while to carry on statistical work upon the question of a vital index which was after all a certain ratio between the number of births and the number of deaths in a certain area. Then they had to deal with the imperfections in the registration of vital statistics. Dr. Radha Kamal Mukerjee had got a very considerable stake in the field of economics in this country and the reputation he got he had to share with other Indian economists.

Mr. Gyan Chand said there were two definitions of optimum density before them. One was the definition of Dr. Cannan and the other that of Dr. Mukerjee. He took it that Dr. Mukerjee took it for granted that the highest average expectation of life or the maximum economic return could be translated in terms of

the highest expectation of life. If that was so, then as Prof. Madhava had pointed out, they had got to discuss the question not merely from the point of view of economic return but also from the point of view of social values. Having a particular conception of optimum, they had got to control population. There was maladjustment in the present circumstances and harmony had got to be deliberately contrived. If that was the only use to which the optimum could be put, then once they began to solve that question they were in for a number of difficulties. First of all, there ought to be world population figures. Economic considerations could not possibly be conclusive for deciding what the world population should be. There was the white Australian policy in Australia and other countries were trying to keep out immigrants. Though there might be economic considerations, still there was something in the point of view which led them to adopt that particular policy. Possibly MacDougal's point of view was that the Nordic race had got the best constitution. The optimum theory so far as the world population was concerned was of no use. Then there was the point of view which had been presented in the writings of Darwin and the eugenists, who wanted to adapt a national population policy, not merely from the point of view of numbers, but from the point of view of quality of population, taking it for granted that men belonging to the higher classes could contribute more to quality so far as population was concerned. This was a very debatable proposition and no eugenic despot could adopt a policy which might lead to a sound population in a country. They were indebted to Dr. Mukerjee for having brought in the biological point of view. If they took into consideration the qualitative point of view then the eugenicist would have to say much in the matter. He was not in a position to suggest any means by which they could control the population and therefore the optimum theory from that point of view had no utility. There might be harm by deliberate contrivance and the motives which had led to the control of population in all

countries were not most of them economic. The standard of living was not merely an economic concept in the village. Then there was the emancipation of women. It was through the family that they could control population and there non-economic motives were much more important than economic motives, and there again the optimum theory was absolutely of no avail. The population problem was not primarily an economic problem. A world population based on the optimum theory was a distant dream.

Prof. Gurmukh Singh said that the population problem could be viewed as a national problem, as an international or political problem, and as a family unit problem. As far as the world problem is concerned he personally thought that they had not reached a stage where they could talk about it or discuss it profitably. No country in the world was prepared to take it from the world point of view, and therefore he took it that it was not of much use to-day to discuss the question from the world standpoint. From the national point of view the optimum was of some value, because it told them that they could not indefinitely support a large number of people in any particular country. The point had been raised whether the test should be the expectation of life as urged by Dr. Mukerjee, or whether it should be the economic standard of life and he personally felt that the latter was a much better test. Roughly speaking every one was able to find out whether the people were even getting enough to live upon and lead a happy existence. The standard of life went on increasing and the standard with which people might be contented at one particular moment might be different from the standard with which they would be contented later on. The standard of life was a dynamic conception, but at any particular moment they had the idea of what the standard should be, and from that standpoint they could at once find out whether a country was overpopulated or underpopulated, and from that point of view he had no doubt that India was overpopulated. With the present production the present population in India was certainly too much to be supported.

They should increase and improve their productive capacity, and also bring about a reduction in the birth-rate, and in both ways make the population an optimum one.

They had to discuss the question not only from the point of view of a particular country, but they had also to discuss the question from the point of view of an individual, or an individual family. Although it might be possible to support a much larger population, it was not only the national interests that ought to be considered, but also the interests of the individual and his family. They had not to look at the question only from the national point of view, but they had to look at the question from the point of view of an individual. An individual person might not be able to support even a single child. If they looked at it from that point of view, he personally believed that in any case limitation and control would have to come in. The question was whether by that control they would do harm to the nation. Some persons might say that the potential life which was prevented from coming into being might lead to a great genius. But they had to take into account whether a man had a sense of responsibility and could give a decent chance of life to that potential being.

Mr. R. M. Joshi said that Prof. Mukerjee had given a population resumé of the biological thought on the subject. But the biological conception took it for granted that all ants and squirrels were of the same type. It did not allow for the distinction of quality between one ant and another and between one squirrel and another. Therefore, when they considered the problem of population with regard to human beings, they ought not to be led away by what happened to ants and squirrels. He was unable to agree with the expectation of life as regards the size of the population. It was mainly the economic aspect that had to be considered. Canada and Australia to-day would not have more population, not merely because they did not want people of the brown or the yellow colour, but they did not want even white

people. Canada had unirrigated land and wanted agriculturists with capital. The United States also put restrictions on immigrants. Australia said exactly the same thing. Mussolini, who was now a potential danger to the peace of Europe, was the only person who wanted a growth of population in Italy. When they thought of population they did not think merely of quantity but mainly of quality. There was no point in talking of the standard of life in a country because there were various standards of life for the various strata of society. In Europe and America, when they found limitation practised in family units, the main idea was not to live, or to emancipate the women, but the main idea was the maintenance of a proper standard of life. It was entirely the standard of life which the people had in mind in regard to the conscious limitation of the numbers of the family. In France even farmers practised conscious limitation. Even the poorer classes of people who in Europe had got into the habit of conscious limitation had the idea of the standard of life in mind.

Mr. Shafi said that as regards the practical value of the optimum conception the economic point of view was one of the most important points of view. For that reason as practical economists they might continue to attach a certain amount of importance to the idea of optimum. He believed that India was overpopulated in this sense,—that if the population was reduced by deliberate means there would be more income per head. It was impossible to present any accurate and absolutely reliable statistical evidence in this matter. It was possible, for instance, to say that there was a great deal of mortality in this country which was easily avoidable, and it was no use saying that it was merely due to poverty. To say that it was due to poverty was to admit that there was overpopulation in the country. By overpopulation he meant that there was a lack of balance between wealth and the poor people. If by deliberate means, self-restraint or otherwise, the population was reduced, the income per head would certainly be increased in India under the present circumstances. The remedy

to this could only be through family limitation, and he thought this was an instance where the individual point of view and the national point of view harmonised to a very great extent. If it was borne in upon a large number of families among the masses in any country that it was desirable to limit their numbers in order to increase their economic opportunities, then not only the family but also the nation would benefit in the long run from all points of view. France could be taken as an illustration of this. In France everybody cut his coat according to cloth in regard to the size of the family. He agreed with Dr. Pant that in reality a practical programme of birth-control had to be devised in this country. He thought that some sort of discriminating propaganda was essential in this country in regard to this matter.

Dr. Beni Prasad said he had only one consideration to put before the conference. In regard to the question of population there was one factor which the supporters of the optimum theory and the supporters of other theories had not always taken into account, and this was the factor of the nervous strain that civilisation imposed, particularly on residents of large towns. He wished to illustrate it by the phenomenon of the decline and fall of the Roman Empire, because there they could study it from the commencement down to its completion. Now historians were tempted to believe that the nervous strain imposed by the Roman organisation upon a large class of the population led at last to a decline in its birth-rate. Some sociologists had recently drawn attention to the fact that the nervous strain of modern civilisation might be one factor in the limitation of population. As regards the biological data, he thought they could not solve a human problem entirely on it. Animal life was mainly guided by instinct while human life was guided not merely by instinct, but by reason and conscious planning. This conscious planning would always lead them to a right limitation of population.

Mr. Thompson said he believed that Dr. Mukerjee had given them in the expectation of life the best statistical measure which

had yet been proposed of the optimum population. He had proposed that if they considered the numbers of populations approximately at the same grade of economic development, then amongst those the one that had the maximum expectation of life was probably the optimum population. The speaker defined the optimum population as that which had the maximum income per capita, but was inclined to think they could not get a better statistical measure of it than the expectation of life. Of course, it was possible that people might say: 'We shall have a short life and a gay one and shall limit our population tremendously in order to have a very high income per capita during a short happy life.' Or we might sacrifice present pleasures to the future of our children. In the long period it seemed to him that the maximum expectation of life must coincide with the maximum income per capita and, therefore, he was greatly struck with what Dr. Mukerjee had written in this connection. It seemed to him that two or three gentlemen who had spoken had entirely misunderstood the idea of optimum population. They seemed to think that it was the population which was the wealthiest irrespective of the state which the nation had reached. That was not the case at all. At every given stage of development, it was the population which could have the highest wealth per capita. If the birth-rate was greater than the death-rate it seemed to him there was absolute underpopulation, but if the death-rate was greater there was absolute overpopulation. This was one simple crude test which needed modification and careful consideration. If emigration was greater than immigration there was relative over-population, but if immigration was greater than emigration there was relative underpopulation. In the United Provinces they found districts which represented all possible instances. For example, Ballia is overpopulated in both senses, others in only one or the other. If you took the United Provinces, which have had a decrease in population for two decades, if you combined with these tests tests similar to those which Dr.

Mukerjee has proposed, based on the number of people in different age groups,—he thought it quite satisfactory to take three age groups and then compare the number of people at two different periods of time,—you would be able to find out whether a particular district was at its optimum population and whether it was progressing or declining. -

Dr. Mukerjee replying, said the criticisms against his paper might be classified into two groups. He pointed out that as soon as there was a bad harvest in a district like Etawah or Agra there was an immediate fall in birth-rate, and on the contrary as soon as there was a good harvest there was immediately a sudden decrease of mortality. Neither maximum productivity nor the highest amount of wealth per capita could be the criterion of the optimum population, for the very simple reason that the maximum productivity of a nation in Western Europe might be at the expense of the wholesomeness of large masses of population. The average expectation of life was the soundest economic criterion. There were strong biological and moral reasons for believing in it. The average expectation of life was measurable. It supplied them at once with the goal of economic life, and a measure of economic advance, as well as a test which could be quantitatively estimated. There had been three economic concepts relating to the population theory which had been placed before the conference. If there was optimum density as measured by the highest average expectation of life, there was also the equilibrium density. There was either the scourge of epidemics or something else by which the population was brought back to what they might call the stable density or equilibrium. Prof. Thompson had argued that at some time in the near future men might think of a short life but a gay one. His reply was this. Men had a good size and were not as small as mosquitoes. The very size of the human organism would be against any possible fear that they would want a gay and a short life. Men would hanker after a long life, and the highest duration of life was the life which not only

gave a nation the highest productivity, but also the highest social and moral virtues. Dr. Mukerjee in conclusion said that in many parts of the U.P. they had reached a stage of overpopulation, and he entirely agreed that they as economists should launch a vigorous programme of birth-control amongst the masses of the people.

Mr. N. S. Subba Rao, the President of the Association, then concluded the conference with the following remarks:

It is now my task to bring the session to a close, and I shall not spoil the good impression which I hope I made at the commencement of the session when I refrained from reading through my address, by speaking at length now. Nor is it seemly I should speak at length since I am so to speak in a process of dissolution. I believe, however, there is a sort of convention that the President should either give a resumé of the several speeches made in the course of the discussion, indicating the strong and the weak points of each, assigning marks like a good school-master, or air his own views at great length as though they were entitled to special consideration. I propose to do neither. It is sufficient to say that the discussions have been very full and interesting, and sometimes a mild touch of personalities made them even piquant. It is not given to every learned body to maintain not only a high level of discussion, but also to sustain such an amount of interest, as we may claim has been the case this session.

Those of us who were instrumental last year in including for discussion the subject relating to economic theory have every reason to be satisfied both with the papers read, as well as with the discussions on them. It is true that owing to the short notice we had of the papers and also the rather abstruse nature of the subjects, all of us could not join in the discussion. For the coming year we have prescribed a definite subject, viz., the Theory of Distribution, and not the entire range of recent economic theory, so that members will know what kind of papers

they have to expect, and can come prepared. To my mind papers on theory will serve an important purpose in that they will stimulate teachers to keep themselves abreast of recent developments not merely in the subject which they are engaged in teaching but also in cognate subjects. Even if there be some duplication of papers, the good done will outweigh the slight waste of energy involved.

With regard to the papers on Public Finance I said to myself that I should sleep over the discussions and state to myself what my own views were. The result has been that like the landlord of the "Rainbow," I seem to feel that both parties are right. After all, there is general agreement as to the need for readjustment of Imperial and Provincial Finance, and the general principles on which such an adjustment should be made. We differ only in respect of details as to what taxes should remain provincial and what should be transferred to the central government. My own bias is, I must admit, in favour of Professor Joshi's proposals. I agree with him that the land revenue should ultimately be transferred to local bodies, which would levy a low flat rate, allowing the provincial governments to tax larger incomes from land under the provisions of a modified Income Tax Act. I am also inclined to transfer income-tax on persons to the provinces and the excise to the Imperial Government. There are, no doubt, sundry difficulties such as those which embarrassed my friend Dr. Thomas, viz., that if excise were transferred, land would be a subject for provincial taxation, while liquor-producing trees that stood on them would be subject to Imperial levy. To my mind the decisive argument in this case is the necessity for breaking up the tacit, unholy alliance between the Development Minister and the Excise Minister. For whenever prohibition is advocated in provinces, the staunchest ally of the Excise Minister, by reason of his financial needs, is the Development Minister, who is in charge of the Educational Portfolio. It is imperative that this alliance should be broken,

and a parallelism established between military expenditure and excise revenue. I do not mean to suggest that we shall be able to reduce military expenditure in a short time, nor do I expect that the Imperial Government will be able to do without additional revenue, prohibition or no prohibition. We shall have done a great service to the country if we create this link between military expenditure and excise. I must in this connection deprecate, what was perhaps only a pose, an attitude of studied indifference towards the needs of the central government, and undue emphasis on the importance of provincial finance in Indian administration. I have no doubt that the speakers did not intend that they should be taken too seriously, but there was enough seriousness in the attitude to require a word of caution, and I should remind my colleagues that it is most necessary that nothing should be done to injure or undermine the position of the Imperial Government as the symbol and the prop of Indian unity. Any attempt to rate provincial interests higher than the requirements of the central government would be on a par with the attitude of the Negro slave who would not wear his hat in rain, because the hat was his and the head his master's. We must also remember that for several years to come, it will be the duty of the central government to equalise the benefits of civilised government between the backward and the more advanced provinces.

We had also an interesting discussion on the problems of population. I shall not enter into the discussion but shall only say, in concluding my remarks, that so far as the difficulty of food supply is concerned, that is easily solved. Those who have difficulties about food supply have only to arrange for a Conference and come to Allahabad. I may say speaking for myself and probably also for my brother delegates that we have been embarrassed here not so much by the climate, or by the pressure of work, as by the overpowering hospitality of the University and the Reception Committee. I take this opportunity of offering

on your behalf and on my own to the Reception Committee and the several hosts our warmest thanks for all their kindness. We have also to thank the University, the Department of Economics, and in particular Professors Thompson, Rüdra, and Ghosh for their constant solicitude for the comforts of the delegates.

Prof. C. N. Vakil, Bombay, proposed a vote of thanks to the Chair.

INDIAN ECONOMIC ASSOCIATION

Report for the year ending 30th September, 1929

On 1st October, 1928, we had 125 members on our register. Of these, 23 resigned during the year, and 22 new members were enrolled, so that at the end of our official year, we had 124 names on the roll. The preceding annual report had to make a similar statement about our strength of membership. For two years we have just been able to maintain our strength. That is all, and that is not quite satisfactory.

The financial position of the Association, however, continues steadily to improve, the balance to our credit having increased during the year from Rs. 1,008 to Rs. 1,247. The audited Statement of Receipts and Payments is attached herewith.

I was away in Europe from 22nd May to 23rd October this year. The work of the Association was carried on during my absence by my colleague at the college, Prof. H. N. Kaji, at the instance of the Executive Committee. The best thanks of the Association are due to him for the same.

R. M. JOSHI,
Hon. Secretary and Treasurer.

The Sydenham College of Commerce
and Economics, Bombay,

16th December, 1929.

INDIAN ECONOMIC ASSOCIATION
Receipts and Payments for 1928-29

RECEIPTS.		PAYMENTS.	
	Rs. A. P.		Rs. a. p.
Balance from last year	... 1,008 12 5	Paid to the Department of Economics, University of Allahabad for 124 members @ Rs. 9 each	1,116 0 0
Subscription for 124 members @ Rs. 12 each	... 1,488 0 0	Expenditure for V. P. Journals refused	6 9 0
		Postage and Stationery	48 10 0
		Printing	52 0 0
Sale of Reports	... 16 11 0	Clerical Assistance	75 0 0
Sale of Conference Reports	... 30 0 0	Commission on cheques	0 4 0
Miscellaneous Receipts	... 0 12 0	Miscellaneous	0 5 0
Total	2,544 3 5	Balance in Bank	1,296 12 0
		Balance in hand	1,246 5 11
		Total	2,544 3 5

Examined and found correct.

ARJUN K. S. AIYAR,

Incorporated Accountant,

Hon. Auditor.

R. M. JOSHI,

Hon. Secretary & Treasurer.

Bombay, 22nd November, 1929.

**Profit and Loss Account for the year ending
31st May 1929**

	Rs.	a.	p.		Rs.	a.	p.
To Salaries	783	8	0	By Subs. to Vol. VIII	58	0	0
„ Postage	570	10	0	„ Subs. to Vol. VII	24	0	0
„ Stationery and office expenses ...	79	9	9	„ Subs. to Vol. IX ...	3,112	0	0
„ Paper	524	3	6	„ Sale of Back Nos.	605	12	0
„ Printing	1,500	8	0	„ Due from members of I. E. A. ...	36	0	0
„ Bank's commission	5	12	0	„ Due from I. E. A. ...	54	9	0
„ Miscellaneous ex- penditure	12	1	0	„ Int. on R/D ...	70	0	0
„ Depreciation ...	81	7	8				
	3,537	11	11				
Profit c/o to B/S.	422	9	1				
Total Rs. ...	3,960	5	0	Total Rs. ...	3,960	5	0

Balance Sheet as on the 31st May 1929

	Rs.	a.	p.		Rs.	a.	p.
Net worth	3,548	9	1	Fixed Deposit ...	3,000	0	0
Profit B/F from P/L A/c	422	9	1	Cash in Bank ...	510	9	5
Subs. to Vol. X in advance	311	0	0	Cash in hand ...	359	15	9
				Equipment 381-7-8			
				Less Dep. 81-7-8			
					300	0	0
				Bhagwati (loan) ...	9	0	0
				Due from members of I. E. A. ...	48	0	0
				Due from I. E. A. ...	54	9	0
Total Rs. ...	4,282	2	2	Total Rs. ...	4,282	2	2

R. M. SINHA,
ACCOUNTANT.

S. K. RUDRA,
MANAGING EDITOR.

G. D. KARWAL,
TREASURER.

Examined and found correct.

R. DUBEY, Commerce Department.

Indian Journal of Economics

VOL. X

APRIL 1930

PART 4

JOHN STUART MILL, THE REFORMER

1806—1873

BY

JAMES BONAR

Mill. Am I not too small a man to be put to the question? I was not original, only willing and eager to learn from everybody? (Autobiography, p. 190.)

Newcomer in Hades. Too small a man? Would you be content with a lower place than Comte, who was quite sure for his part he was a great man? (Comte and Positivism, p. 130.) Think of Taine and you can say, 'I was adored too once.' (Study of Mill, 1866, Transl. 1870.) Your Logic was enough to decide him. Even before your Logic, John Sterling spoke of you in 1840 as 'a man of extraordinary power and genius!' (Journals of Caroline Fox, revised edn., 1883, p. 69.) Caroline Fox spoke of you as 'a very uncommon looking person, such acuteness and sensibility marked in his exquisitely chiselled countenance.' (85, 1840.)

- M.* I wrote my own Life very largely to show what could be made of an ordinary man if he were extraordinarily well brought up. (Aut., 1, 30, 34.) I took up intellectual labour early and lost no time over frivolities. I had really a happy childhood, without adventures. I was never stolen by gipsies like your Sage. My father was my only schoolmaster, and I left his hands at 14, with a start of 25 years over my contemporaries. (Aut., 31, 57. But of Carl. F., 94, 107.) I kept up my health by temperance and much walking (35). There are many grades between Under-dog and Super-man. You mean only that I was no Under-dog?
- N.* By the Dog of Egypt, who was no Under-Dog, I do mean something more. Even Socrates was aware he was an unusual kind of man. (Apol., 20, 21.) You must have had a glimmering notion of that sort too.
- M.* You are an Economist and may be thinking of my Political Economy. Kindly observe that economists do not reach the highest honours. They tell me Darwin's grandson, whose book surpassed my expectations (Elliot, I, 236, 1860) is in Westminster Abbey. Malthus is not in that Abbey. The Sage (as your friends call him) sleeps in the Canongate, Ricardo at Chippenham, his daughters over him as guardian angels; Marx, the cosmopolitan, at Highgate; the rest among their own people. I am at Avignon among my Frenchmen. My Liberty, 1859 and my Logic, 1843 may preserve my memory a little.
- N.* Pray, do not moralize among the tombs; you have passed beyond them. Are you afraid to think what you have done besides these two books?
- M.* No, at the close of life I did not smack my lips like Harriet Martineau. (See her Autobiog., III.) But I thought better of life than my father did, to whom it was 'a poor thing at the best' (Aut. 38). A man, who does his utmost with his powers

cannot be wasting time. (*Cf.* Elliot, I, 92, II, 362. *Car. F.*, 114, 192 and 295.)

N. No, indeed; and to judge by fame you lost little time. You ruled for forty years as no other writer on your subjects. You did not stand or fall by one book only. All those years, we heard of Mill's *Logic*, Mill's *Political Economy*, Mill's *Liberty*, Mill on *Subjection of Women*, Mill on *Representative Government*. We looked for Mill on *Ethology* and Mill on *Sociology*, but they never appeared though you left us good sketches of them. (*Logic*, VI, v. *Ell.*, I, 226.)

M. I suppose you have read my *Political Economy*. It was assailed even in my lifetime, and is possibly forgotten now except by economists like you. It used to have readers outside the schools and I cultivated them, as my manner was, by cheap editions, with results that surprised myself. (*Autob.*, 278, 279.)

N. In *Political Economy*, Jevons, who taught us to call it *Economics*, led the first serious revolt against you in the schools. Ruskin was a knight errant and not even what you call Harriet Martineau, a tyro. (*Ell.*, I, 157.) But it was Alfred Marshall in 1890, not Stanley Jevons in 1871, who really dethroned you. He did more justice to you than Jevons or Cairnes; but his Preface in 1890, places you, Mr. Mill, where you placed your predecessors in 1848. You emancipated *Political Economy* from them (*Ell.*, II, 90); he would emancipate *Economics* from you. The New Age has new problems, and the old doctrines must be re-cast. Yours are now the old doctrines. [*Principles*, 1890, *Memorials*, 1925, 119 (on Mill's *Theory of Value*, 1876).] Having been in the Canon for a whole generation you are now in the Apocrypha, to be read for example of life and instruction of manners. You know the rest of the Article; we are not to apply you to establish any doctrine, *ad dogmata confirmanda*. This does not infer medio-

crity; your forerunners had the same fate, and Marshall will have it in due time. Dante says this happens 'in the Fine Arts; *a fortiori* will it happen with our economic heroes.

M. Yes, not only I but all economists become apocryphal writers. They write no books that remain for all time canonical in the sense of the sixth article of your thirty-nine.

N. We look to you then, confidently, for instruction of manners. Thomas Hill Green said he would rather have been you than Carlyle; you were 'such a good man.' (Nettleship, *Life of Green*, 224.) Yet you thought you were made for the relatively commonplace.

M. Yes, my strength lay neither in the region of ultimate aims, the Eternities and Immensities, nor in helping the world at close quarters to earn its daily bread, but in the intermediate region of moral and political theory. (Aut., 189, *Dissertations*, I, Bentham, 384.) I busy myself with what Bacon called the *axiomata media*, the science of science, of the methods of science. (Elliot, *Letters of Mill*, 1910, II, 333.) Now, the Superman goes to first principles; therefore I was no superman.

N. You counted your study, however, of very high dignity, 'the crown and consummation of a liberal education.' (Address at St. Andrew's, 1867, p. 9.) You stationed yourself in the middle where Goethe puts all the philosophers. (Wilh. Meister, *Wanderjahre*, II, i, 152.)

M. Goethe says elsewhere that the man in the middle is the man of the world, a description which hardly fits me though it very well fitted Goethe at Coblenz in 1774, between Basedow, the enthusiast and Lavater, the man of science. Your eulogist could justify himself, if at all, not by the subjects chosen but by the way they were pursued. He may have thought me more impartial than Carlyle and more anxious to do justice to opponents. All I can say is that for the most part I lived the

scholar's life more assiduously than most professors though I never was a professor or even had a degree.

N. You came out of the scholar's life when you sat for Westminster in 1865. You escaped into it again three years afterwards.

M. I was not made for a political career or even for an academic.

N. This last is not so evident. Perhaps both are doubtful. Even in the House, though you were not a perfect speaker, you were impressive. (Roebuck to Chadwick in *Ell.*, II, 59, *cf.* I, 253.) But like Carlyle you were once a Lord Rector. You addressed the young men of St. Andrew's impressively on University education (1867). You had long before helped to create the University of London. You went to John Austin's lectures at University College in 1828 (*Bain's Life of J. S. Mill*, p. 32), and played with the idea of lecturing there yourself in 1867. (*Elliot*, II, 93.) Though not a University man, you rubbed shoulders with Universities. Did you also rub shoulders with mysticism? Carlyle hailed you as a fellow-mystic in 1831, just seventeen years before you drummed him out of the ranks of modern reformers—for his *Past and Present* (1843).^{*} Your capitals leave us in no doubt that you mean him. (*Pol. E.*, IV, vii, Ashley, 754.)

M. He was wrong. I struggled against any approach to mysticism. Parting from Bentham expressly at a later time (*Utilitarianism*, 1863, Ch. I), I distinguished higher and lower pleasures, as Plato had done. I thought that Happiness, though the chief end of man, should be pursued not directly but indirectly (*Aut.*, 143). I held it better to be a Socrates dissatisfied than a fool satisfied (*Util.*, 14). People might say I spoiled my Utilitarianism without rising above it. I was at one time distressed that I had worn away all my powers of feeling by an

excess of what Carlyle calls 'victorious analysis.' But I never confused feeling or fancy with logic. Where logic stopped, I stopped with it. I never liked any one to criticise Bentham but myself; and I remained a professed Utilitarian all my days, but a Utilitarian who, unlike Bentham, takes account of the whole of human nature. (Elliot, I, 103-4, Car. Fox., 124, Ell., II, 222.) In reviewing Whewell I made that plain. (Diss., II, 450 *seq.*)

N. As much a Utilitarian as Hegel a Lutheran. 'Ich bin es und will es bleiben' (Geschichte der Philos., I, 89, ed., 1840). We can safely leave you to deal with Bentham alone. Why do you speak of his early impressions as formed in the age of 'the leanest and barrenest men'? (Diss., I, *cf.* 334, 355.) His 'Fragment on Government,' the first fruits of his impressive youth, appeared in 1776 along with the Decline and Fall and the Wealth of Nations. It was the age too of Edmund Burke. If such are the lean, where shall the fatness be found? In 1838 when you thus write of him, you are in revolt against his rule of the majority (*ib.*, 378), but it was not from such men that he got it. You do justice to the age afterwards: 'a great age, an age of strong and brave men' (Aut., 205), of whom your father was the last. I suppose we may call him in the conveniently ambiguous Latin '*ultimus illuminatorum.*' But your superb presentments of Bentham and Coleridge (Diss., I, 330 *seq.* Aut., 243) were presentments of two sides of your own nature. You were under the spell of Coleridge. Was Bentham on the other hand making you, like Mrs. Browning's Lucretius, 'teach the truth you could not learn?'

Beyond the field of firm belief which stopped with logic you allowed an area of 'imaginative conjecture.' (Elliot, II, 64, 1866.) You were always 'member for France' (Bain, Life of J.S.M., 78), though the overflowing sentiment and openness, to say nothing of the dreaminess, supposed to belong to that

nation, were not conspicuous in you. You have pointed out the defects of your Frenchmen as well as their excellences. (Car. Fox., 357, Ell., I, 44, 74, *seq.*) You rose superior to your sect's aversion from sentiment, in the autumn of 1826 (Aut., 133, *cf.*, 111); and recovered your lost feeling by means of poetry, especially the poetry of Wordsworth (*ib.*, 1828, 146). Some of us can hardly forgive you for calling him 'the poet of unpoetical natures' (149). The phrase rivals 'the leanest and barrenest men.' What you say of Shelley gives us misgivings, not entirely removed by your youthful essay on Poetry (Diss., I, 1833). You believe that in thought and intellect, so far as shown in his short life, Shelley was a child compared with some one else you knew; namely the lady who wrote on the Enfranchisement of Women. (Aut., 186, Diss., II, 411, *seq.*, 1851.)

M. You doubt it only because you did not know her.

N. I remember the story, and I respect the feeling. I respect also the English reticence that kept it for the Autobiography. Ricardo kept such things for his letters. One word as to Ricardo. Please understand in spite of your modesty that you are to us the developed Ricardo. Though he was no opponent, you characteristically stated his positions better than he did himself, or with all his pains MacCulloch did for him. After doing that, you added a new element to political economy, for with the assistance of your honoured lady you wrought social philosophy into the texture of it. (Aut., 23.)—Others had distinguished but not combined them. In your youthful 'Unsettled Questions' (31) you had spoken of 'the common interest of all nations,' and in the Political Economy (V, xi, 14, 970) of 'the collective economical interests of the human race.' You rose above insularity. You were no mere Formulator but a Reformer, in this as in all your subjects.

M. Your Sage dealt with all nations and spoke of them as one

great mercantile republic. But there was something to reform in him and even in Ricardo, whom I am accused of praising too highly. Like Iago, I am nothing if not critical, and I dare to say that 'my father's Elements,' drawn up from notes of his Ricardian lessons, given to me in my 13th year, are out of date now. (Aut., 25, 26, 205.) But all true criticism involves construction. (D'Eichthal, 350, 1830.) Few things annoy me more than the careless ease with which men dismiss the old political economy, and appeal to 'practical experience,' by which they mean what they have seen, heard, and misunderstood. (Ell., I, 206, Dissert., I, 52.) We have all sorts of false political economy, judgments by commonsense. Yet there abide 'fundamental principles put out of the reach of controversy, by Adam Smith, Malthus, and others.' (To Napier, 1844, p. 478, cf. Ell., II, 331.) D'Eichthal, 350, 1830.)

N. An economist at 13! If you were not a Superman, you were certainly a superchild. No other could have survived that education, perhaps the only successful attempt ever made to put an old head on young shoulders. It gives us relief to find, up and down in your life, traces of our common humanity. At seven years of age, studying the American War of Independence, you took the wrong side because it was the English side. (Aut., 4.) Fifty years later (we rejoice to hear from Leonard Courtney) you called for muffins at the Political Economy Club when the supply had run short and no one else dared to ask for more. (Hist. of P. E. Club, 326.) You wrote tragedies as a boy, on the models of Joanna Baillie. (Aut., 15.) It was a refreshing sign of human weakness to sympathize with the Tractarians. (Bain, J.S.M., 69.) We like to hear that your father failed to make you follow the rules of elocution (Aut., 23), and that you first learned to compose properly when you were asked to turn Bentham's later manner of speech into his earlier. (Aut., 116, aet., 18, 1824.) We were glad you enjoyed

Sartor Resartus, once in type (Aut., 175), and that you were a little softened towards Hamilton when you found by Veitch's Life of him that he had family affections. (Elliot, II, 206.) Most of all were we charmed to find you in love, like one of ourselves, even if you had rebuked Comte for that weakness. (C. and Pos., 131, 157.) You had humour yourself as well as a sense of its value. You said to Caroline Fox in 1842, 'Life is not all fun though there is a great deal of fun in it.' (Car. F., 195.) And you remarked in your shortlived diary of 1854, that humour has saved many a man from madness. (Ell., II, 360.) Like the rest of us, as soon as you had passed forty, you thought the world was more frivolous than in your youth. (Aut., 53. Diary, Ell., II, 361, 371.) It was a very human discovery too that your earlier writings seemed as strange as if written by somebody else. (Diary, Ell., II, 373. Car. Fox, 419.)

W. I trust this is friendly irony, not spiteful sarcasm. There is little of irony or humour in my books, whatever may have peeped out in private life. Sydney Smith would have said that my ancestry conferred precocity but no humour. Now it is quite true that my father was Scotch, but I assure you that, like Carlyle's Teufelsdröckh, he could laugh heartily on occasion, if that goes for anything. (Aut., 192, Bain, J.S.M., 59, 60.)

N. Compared with his biographer, he might indeed have been humorous. His biographer has written exquisitely of yourself: 'His nervous energy was so completely absorbed in his unremitted intellectual application as to be unavoidably unavailable for establishing the co-ordination of muscular dexterity.' (Bain, J. S. M., 333.) No one but the biographer of Johnson could rival that passage. *Risum teneatis amici?*

M. I might smile at the passage without being quite sure that I had not written it myself,

N. Mr. Mill, you were Polonius to Carlyle's Hamlet; but even in your always sententious and serious books I can sometimes find the humour shining through. You yourself say that a little sense of it would have shown Comte the absurdity of his symbols of worship. (Comte and P., 154.) You had it when you said that 'the groans of no plundered abstraction can disturb the sleep of the just; as long as the bread is not taken from any of our fellow-creatures, we care not though the whole English dictionary had to beg in the streets. (Diss., I, 18, 21.) You were speaking of Church property and supposing yourself to be asked, when all individuals had been compensated, 'Would you rob the Church?' It is delightful to find you thus, in your later manner, reasoning from particular to particular and disclaiming all sympathy with abstractions; all such *entia rationis* were fair game to you even in 1833.

M. I valued the school logic, notwithstanding. (Aut., 17 to 19.) It makes men give precise meaning to the terms they use; I did not find Mathematics doing it so well.

N. Accordingly we find you saying, in the article on Berkeley's Theory of Vision: 'Nobody is bound to prove a proposition which nobody can understand.' (Diss., II., 1842, p. 93.) True fun is sure to Logic near allied in that passage. It was a jocose or else unguarded remark in Representative Government (Ch. II, p. 9, Pop. ed.): 'Things left to take care of themselves inevitably decay.' This would have made an abrupt end of the doctrine of *laissez-faire*. You wrote to Carlyle in 1833, that, though the end of that same doctrine was in view and without resurrection, it was not yet come (Ell., I, 46), and you leave a good deal of it standing in your Political Economy. (Book V, Chapter XI, all editions, esp. 7th, Ashley, 950.) These *obiter dicta* were surely not serious. You were grimly jesting too, were you not, when you consoled the French people for defeat in 1870, by telling them that their principle of Equality

would now be adopted internationally, there being now no dominant Power, neither France nor Germany. (Ell., II, 271.) After the Great War just over, we might have gilded our pills for Germany with a like comfort, if we had thought of it.

M. The public must judge me by what I made public, not by my private letters.

N. I think I like you best in your furious moods. You speak of Protectionism as 'an organized system of pillage of the many by the few.' (Ell., II, 295.) When Mansel supposed a Deity above Morality you were not content with the mild protest of Father Malebranche against a similar idea in his day: 'S'il y avait un tel Dieu (sans bonté et sans sagesse) le vrai Dieu nous défendrait de l'adorer et de l'aimer.' (Morale, VIII, quoted by Mackintosh, Diss., 73.) You roundly declare that if the Deity is to be above morality you will go to Tartarus rather than obey him. (On Hamilton, 3rd ed., 129.) I know it was an echo of Dryden's Juvenal and his hungry Greek; but you make it your own. Your education left a great deal unspoiled in you, Mr. Mill, not always the features sure of the paternal approval, but pleasing to ordinary folk like me.

M. I called Mansel's book (On the Limits of Religious Thought), 'detestable, to me absolutely loathsome.' (Ell., I, 272, Bain, J.S.M., 122.) Was this too strong? Strong language may reveal too much of the writer's mind ('indecently expose' it, as Sydney Smith once said); but it is better than irony which may, as by Swift and Rabelais, be too easily used to conceal the writer's mind, for its essence is to have a double meaning, certain (and sometimes intended) to be missed by an unwary reader. You may find this kind of irony in David Hume, among philosophers.

N. Perhaps your education led you away from all that was not plain and serious.

M. No harm if it had done so. The chief harm of that education appeared on the surface. In spite of my father's warnings I seem to have shown myself in what you would call my tender youth, 'greatly and disagreeably self-conceited,' as I have frankly set down in my Autobiography (33).

N. You are not a Leveller, Mr. Mill. You would not say with some of our American friends 'anybody is fit for anything.' (Ell., I, 280.) You do say as a matter of fact, 'One person is not as good as another; and it is reversing all the rules of rational conduct to attempt to raise a political fabric on a supposition which is at variance with fact.' (Diss., III, 19, Parl. Reform, 1859.) You write to Bain 'I am not anxious to bring over any but really superior intellects and characters to the whole of my opinions' (on religion). (Ell., I, 223, 1859.) You write also that 'a person of high intellect should never go into unintellectual society unless he can enter it as an apostle; yet he is the only person with high objects who can safely enter it at all.' (Aut., 228.) You think it right that a superior person, man or woman, should pass for what he or she really is, neither under nor overvalued. (Ell., II, 100 to Flor. Nightingale, 1867—through Miss Helen Taylor.) In fact you agree for once with St. Paul, of whom as a rule you think lightly with Bentham rather than favourably with Comte. (Ell., I, 144.)

M. Granted: but my state of mind in the early period was neither humility nor arrogance. (Aut., 33.) I was aware I knew more than my fellows but I knew how it had all been conveyed to me without any merit of mine. As to the later citation, about high intellect, you will observe I do not say I myself was possessed of such. What I was even then possessed of was the idea of improvement and reform; and these subjects in England are reckoned too serious to be discussed in society. Hence my condemnation of society. These are to me the most

important of subjects. All my writings bear upon them, even the Logic and the Political Economy. It was never with me 'knowledge for its own sake' even in the Logic. (Carol. F., appendix, 427, 434.) I was a Reformer and knew I should have my cross to bear. (Car. F., 89, 1840.)

N. There was certainly more Logic than Liberty in your education. Still the Logic was your own choice and (with some hints from Bain) your own work. Your concern was to clear men's heads, as the best preparation for the coming Age that would demand all their powers of thinking; and the Logic seemed to you what you could do best for them, as you were not an artist like Carlyle. 'The majority even of those who are capable of receiving truth into their minds must—you say—have the logical side of it turned first towards them.' (Ell., I, 35, 1832, Aut., 176, *cf.* Car. F., 217.) And truth must grow like a seed rather than be struck out like a spark from a discussion. You had no great faith in mere discussion. (Ell., I, 47.)

M. You give me credit for what I really tried in the Logic. I added that Poetry is higher than Logic and the union of the two, properly handled, is Philosophy. (Ell., I, 55, *cf.* 96 to Carlyle, 1833.) I was better supported in the writing of 'Liberty' and yet, paradox as it seems, you will find more of myself there. My book on Ethology or the formation of character, was, as you say never written, and when I projected it my counsellor was not with me. It was to include national character.

N. Yes, like 'Probable Futurity' in the Political Economy, the Liberty, we understand from you, was a joint work; and we agree that it tells, more than any other, of yourself, and your heart's desire, a desire (allow me to say it), which your helper advanced, not created. It is indeed a classical demonstration of 'the importance to man and society of a large variety of

types of character and of giving full freedom to human nature to expand itself in innumerable and conflicting directions. (Aut., 252-3.) The good of the species is the chief end, but it can best be advanced by the development in each man of what is best in him. So you write to Carlyle in 1834 (Ell., I, 92), and more authoritatively (as in a book) in 1840: 'The unlikeness of one person to another is not only a principle of improvement but would seem almost to be the only principle.' (Diss., II, 71, on De Tocq.) You wrote nothing stronger in the *Liberty*, 1859. It seems to mean that all progress comes from the eccentricities of individuals. The idea helps us to understand your remark to Caroline Fox about your discovery that what was right for others might be wrong for you. (C. F., 195.) One of our later poets says, there are inviolate caverns of the mind as there are under the sea. (William Watson.)

M. I had often occasion to remind both friends and critics that the subject of that book was not political liberty but freedom from the tyranny of opinion and prejudice. In England we have more of the political; in France more of the moral and intellectual. What I desired was the autonomy of the individual. (Ell., I, 203, to Villari, 1858, II, 309, to Acolles, 1871.)

N. In your diary you say that the French think and the English do not; but this may be a passing word. (Ell., II, 377.) In Avignon you corrected some first impressions of France. (Ell., I, 256, 257, II, 319.)

M. You are quoting my *obiter dicta* and *obiter scripta* alongside of my books. Allow for differences in time and maturity and you will not (I think) find my books in conflict with one another. Letters are often a serious matter; but letters and, still more, conversation may err on the side of complaisance. This may have happened in my letters to Carlyle, and in my conversations at Falmouth, where Sterling and Caroline Fox had too

good hopes of me. But my chief end in life and the Cross I was to bear were never doubtful. (Ell., I, 22, 26, Car. F., 89, 223.)

Even in the Political Economy I kept in view the 'practical applications,' for which I confess my father's lessons had fitted me none too well. I had at least learned from him and Bentham to be impatient of longstanding abuses. It is true that at the crisis of my life already mentioned I had a vision of disappointment;—if all abuses were corrected, and all my reforms carried, should I be happy? And I answered, No. (Aut., 133.)

N. Your grievances being all gone? I seem to remember a theory of pleasure rejected by Plato in the *Gorgias*, which made pleasure depend on wants or discomforts removed. But you came triumphantly through that crisis. After reading Marmontel's *Memoirs*, that self-same moment you could feel (Aut., 140, 141), and (if I read you rightly), in order to keep hold of the power to feel, you resolved always to make some other end than happiness the purpose of life (142)—not the joy but some bringer of the joy. This is not far from Aristotle's degradation of Pleasure in an adjunct or concomitant of the strivings for other ends. *ἐπιγυ'γνομεσσυτι*. as is said in the *Ethics*. It had a touch too of the Englishman in it, Mr. Mill. You wrote in your diary of 1854, 'It is characteristic of the English that they have no trust in the attainment of any end by directly aiming at it.' (Elliot, II, 384.) It must have been your own characteristic at the time of your mental awakening.

M. Please remember that in the crisis I was not thinking only of myself and my aspirations but of mankind in general. If all reforms were accomplished, and we had a world without poverty, 'the pleasures of life being no longer kept up by struggle and privation would cease to be pleasures.' (Aut., 145, 146.)

- N.* Dangerously near the Sage's view. There is a dictum in the diary hardly consistent with it or with your own craving for solitude. "An earthly life both pleasant and innocent can be had by many and might by all. What is now wanted is the creed of Epicurus warmed by the additional element of an enthusiastic love of the general good." (ELL., II, 385, 1854.) So you had written in 1840, that in the political institutions of a democracy like the American, a man feels that 'the common weal is his weal'; and you take for granted that 'moral excellence must have a deeper foundation than either the calculations of self-interest or the emotions of self-flattery.' (Diss., II, 25, 51, on De Torqueville.) You had certainly some common ground with T. H. Green. It was not a very exceptional crisis—yours of 1826, at the age of 20. It seems to have had a happy ending, a better understanding between you and men of the opposite camp. It made little change in what I may call your intellectual programme, your ideas of reform; you found yourself at the end of life with the same plans before you. However you must have been pleased to find that some of them, to use the merry metaphor of Caroline Fox, had been promoted to jacket and trousers. (Car. F., 367.)
- M.* Even in 1843, I allowed that the temper of the English world was becoming a little better. The country had learned something from Chartism, that victory of the vanquished (Car. F., 432); and in 1865, I said, there was no time in our history when improvement was going on in so many directions at once and meeting such fair consideration. (Pol. Ec. 6th ed., II, xiii, Ashley, 384.) You know I always held that moral regeneration must precede social (Car. F., 434), and that the danger of democracy was intellectual stagnation. (ELL., I, 302.) Whatever Buckle may say, human intellect improves more slowly than human feelings. (St. Andrew's Address, 34, ELL., II, 359, 374.)

N. We must write you down a moderate optimist, in spite of your indictment of Civilization in 1835. (Diss., I, 160, *seq.*) After all you allow that in Civilization the stagnation is tempered by associations and societies, and clubs of all sorts, of which truly there was no lack in England when I left it lately. (Ell., II, 298) But you had another vision of disappointment, the dream of a limit to musical combinations. (Aut., 145.) We might have expected you to dream rather of a limit to mechanical inventions, to usher in your desired Stationary State. For a man supposed by many to be prosaic and absorbed in dismal sciences, you were indeed a dreamer of dreams, Mr. Mill, 'Probable Futurity' is always in your thoughts. There is a visionary element in your 'Liberty.' You desire what was called in your day the Sovereignty of the Individual, better called by yourself Autonomy of the same. (Aut., 255-6, Ell., II, 309-10.) Like the rest of us, you have some difficulty in reconciling it with the encroachments of Government, which, notwithstanding, you regard as inevitable. (Aut., 191, 230, 234, Pol. Ec., 764.) Have we more to fear than to hope from coming changes?

M. In my papers on Socialism, I have acknowledged that English Socialists are no architects of ruin. (Fortn. Rev., Feb., 1879, written, 1869.)

N. You mean, like Burke, that sometimes the French are so. To Karl Marx the necessary prelude of Revolution was the crowing of the Gallic Cock. There is a saying of Napoleon III, that in France reform is not possible without Revolution.

M. Quote him in full. He said, 'In France revolutions are easy but reforms slow, almost impossible; in England, reforms are steady and certain, but revolutions can never be accomplished.' (Car. F., 357, date 1853.)

N. You say yourself that Revolution was very near us in 1832, the days of Reform (Diss., II, 189, Ell., I, 7, 24); and it was

so in the days of the Chartists in 1839, if we believe Francis Place. (Life, 375.) You wrote to John Austin in 1847, that you only wished it would come, to shake us up and put some ideas into our heads. (Ell., I, 131.) You wrote in your diary seven years later (Ell., II, 380) 'English workingmen are never likely to rise until they are starving, and they are never likely to be starving now for generations to come.' This is a new version of '*panem et circenses*,' 'comfort and cinemas,' as Edgeworth renders it. Alfred Marshall, *Memorials*, 71.) But I think that you believe, with Malthus, that a rising standard of 'comfort and cinemas' will bring the desire to have more of such, and you say yourself in the diary that improvement is sometimes thrust on the less happy by those who are already improved. Many of the so-called 'upper classes' make common cause with the Socialists now. Formerly, at least according to Tolstoi ('Que faire?'), it was the upper classes who insisted on the distinction of classes; now it is only the Communists and immoderate Socialists who talk of class-consciousness. Nevertheless you think that even our moderate socialists, though they do not try to produce the General overturn (*culbute general*) all at once, have it in their minds to see it done by and by.

- IV. The ordinary citizen is swayed by his standard of comfort, the reformer by his standard of excellence; both are growing. The new times demand a new type of statesman, one who will legislate for Posterity (Ell., II, 56), and greater equality will be one of his aims. This is a mere generality but there is no harm in that where the malady is general. Where there is a particular grievance, generality may be an insult.
- V. Indeed, Sir, we all desire to see the extremes of riches and poverty removed, even if some eggs be broken for the omelette. We agree with your book that "the best state for human nature is that in which, while no one is poor, no one desires to be

richer. (Pol. E., IV, VI, 2.) In your enthusiasm of humanity as Seely called it, or passion for the public good as you call it (Ell., II, 121, 1868 of Chadwick), you are akin to Malthus among your classical predecessors, and to Alfred Marshall among your successors. Marshall's spur or sting was the thought of the lowest classes of labour; in all his efforts he was trying to raise them or rather to abolish the conditions that killed all thought and aspiration in them. Your eye was rather fixed on the great army of industrial toilers of ordinary capacity and with an ordinary competency, men not in the lowest depths of poverty but men who ought to be raised higher in mind, as well as in body and estate. In short you were the Apostle of the higher education of the average man. This burden of yours may have been in Green's mind when he said you were 'Such a good man.'

M. I can tell you at least who is not a good man, the man who allows a wrong to be done in his name without protest (St. Andrew's, 74), or lets it go on standing when he might help to right it. (Aut., 116, Diss., 1, 336.)

N. Well, you thought at the same time that in your day men's powers and goodness were not such as to make sweeping changes possible even in the political machinery. It is wonderful how free the son of James Mills was from 'the exaggerations of an intellect emphatically polemical.' (Aut., 201).

M. About the time when I became a moderate socialist, I became a moderate democrat. (Aut., 191, say 1840.) My ideal representative government would include Hare's proportional scheme with the quota and alternative vote and preferences. It would be carried on by men trained to govern and be governed, government being at least as hard a 'mystery' as any other craft, the leaders trained to lead, the followers to follow. The faults of representative assemblies are simply those of untrained politicians. The members are no mere delegates. 'The people ought

to be the masters, and they are masters who must employ servants more skilful than themselves.' (Ell., II, 130, 1868, Repres. Gov., V. VI, 1861, Diss., I, 471-2, 1835, II, 81-2, 1840.)

V. May I put it in this way? If any at the bottom are fit to go to the top, they must learn statesmanship. To make haste to be in power may be as ruinous as to make haste to be rich. He that believeth must not make haste, whether over the writing of a book or the making of a political constitution. Revolution is not the weapon for us.

M. I scout 'the' Revolution, name and thing. (Ell., II, 347, 1872.) Remember, I did not cease to be an economist when I became a modified Socialist. Disregard 'economics' as you call it, and the result is enfeeblement. The product must increase with the number of those who share in it. (Pol. Ec., IV, VII, 1, Ashley 752.) Comte wrongly made production the chief end of society. I think it is not that; I prefer a stationary State, secured by prudential restraint of population, and not requiring the destruction of solitudes. Solitudes 'impassable and impenetrable' are the surroundings in which the best individuals best grow up. I said all this in 1848 and have not unsaid it (Pol. E., IV, VI, 2). (Ell., II, 55, 1866, to Dr. Eichthal, 1829, in Cosmopolis, April, 1897, p. 30.) I support production and all the economies of production; but I do not regard them as the whole of man, the chief end of life. The idea that they are so, may have had its use; 'while minds are coarse, they require coarse stimuli; and let them have them!' (Pol. E., IV, VI, Ashley, 749.)

N. The phrase is stinging, and separates you from the Manchester School. Your papers on Socialism are less severe, though written in 1869 when you supposed yourself more advanced than in 1848. (See e.g., Fortn. R., 1879, pp. 379-80.)

M. Even in 1848 in my first edition I was, as you rightly said, deliberately working for the Emancipation of Political Economy

from the successors of Ricardo who were making a bad use of it. (Ell., I, 149, 1849.) In my 3rd edition I went a step farther than that, and (if you like) prepared the way for my modified socialism. (Ell., I, 167 to Sietbeer, 1852). Though I tried to show in the 'Probable Future' (P. E., IV, VII, 6, 789), that to abolish the middleman by co-operation is to raise wages without touching the capitalist or rather the employer, with his profits, it was not that I had scruples against touching him if the common good required it. By and by Thornton showed me that the employer could be touched more effectively than my classical teachers had believed.

N. You confessed as much in the Fortnightly Review (of May, 1869). The account of the Wages Fund which you give in that article does not leave quite the same impression as the account in your book. It sharpens the features of the case, as if the quota of the employer's income reserved for wages was rigidly ear-marked, with no elasticity in it, so that the employer could never be squeezed up to give more, while the workman could often be squeezed down to take less. *Cf.* P. E., Ashley, 344, 347, contra 992). When your mind was unruffled by doubts, you used general terms; we do not hear of limits unconditionally predetermined, but of circulating capital and population. It is true that you could not then foresee the power of Trades Unions to create the conditions which have raised real wages and unmistakably turned the tables. It is with us a question not so much of raising wages as of training the workmen, now that the wages are raised. Their increased earnings create increased responsibilities, not only the moral which you considered, but the economical, which were not perhaps equally brought home to you since the occasion was farther off. They should learn all the best virtues of the best of the present employing classes, including the provision of capital for future production.

M. Thornton, I suspect, saw no farther than I did into the future. On my own principles of controversy, I felt bound to state his case first of all at its best for him and its worst for me. In doing so I convinced myself that he had the best of it out and out in judgment of me his opponent; and I frankly said so.

V. Your brother economists were nearly all anxious to be convinced, for they saw that what was denied even by the vaguer theory of a Wages Fund was being accomplished *de facto* in the world outside their study. But why should you be unfair to yourself? Your overscrupulous conscientiousness was a stumbling block to students who tried to put your two and two together.

M. I may have leant over backwards. The main question is: Was the ruling theory true or not? If we allow that it is not true even in the less rigid form, the other falls of itself. But you and others have spoken of the existence in these latter days of something beyond the mere power of the Unions to break through the supposed limits of a Wages Fund. There seems to be a new way of escape from the natural consequences of wages, unduly high by market conditions. The usual surplus labour is said to be duly present but without pulling down the rates of wages, those unemployed being supported largely at the public expense yet not by a Poor Law.

V. Your own view of the relief of the able-bodied (V. XI, 13, Ashley 67-9) may be reconciled with the new kind of relief of the unemployed now; but you still stand by the Poor Law and the principles of 1834.

M. You will remember that in 1869 the year of my article on Thornton I was beginning to write on Socialism.

V. Yes, and in the first paper on Socialism, presumably the first to be written, you are a better prophet than ever the Sage

was. Writing just after the passing of an Act extending the suffrage to workingmen in the cities, and without the panic of a politician, you forecast the ultimate effects with hardly a word wrong. You say too in 1871 (*Ell.*, II, 311), that land and labour will soon be the whole of politics. You knew that the time appointed was long; it was twenty years before the rural labourers got their vote; but you saw even then that in the fulness of time there would be a Labour Party in politics, representing the employed generally. You will care to know that such a party began by being the tail of the Radicals as the Radicals in your lay were of the Whigs. (*Ell.*, I, 108.) It was not clearly in being as a separate force till forty years after your prophecy—but it has now the full equipment of a separate party, a head, body, and tail of its own; it is said, a steady head, a stolid body, and a restive tail. There has been even an experience of government, in 1924, just a century after repeal of the Combination Acts. There was much responsibility and little power. Another trial will show if it is proof against the corruption, feared by you, that is in the political world through power and patronage. Your forecast there is gloomy, but you think a Labour Party would stand out against underhand dealing and against bureaucracy. (*Ell.*, II, 45, 46, 70, 1865).

M. I knew how unprepared my countrymen were. I am not surprised that the change took forty years. A nation in deliberation is like a very young man; it can think of only one thing at a time. (*Aut.*, 108, 109, *Ell.*, I, 218, to Villari, 1859.)

N. If wages earners had been really 'Wage slaves' they would hardly have waited forty years before voting out or thrusting out the slave owner. It was clearly no such simple case as the unlocking of a door and the knocking-off of chains.

M. Their position was not that of slaves, but of men nominally and legally free who needed an education before, like other citizens, they could win to themselves the full privileges of

liberty, and use the functions characteristic of liberty in a civilized country. A people are civilized when they 'act together for common purposes in large bodies' and rely for their security on 'social arrangements' instead of force. (Diss., I, 162.) Otherwise, as Carlyle said, they have 'all the powers of civilization and none of its rules to guide them.' (Letters of C. to J. S. M. Fisher Unwin, 1923, p. 33.)

V. I agree. This does not come by instinct. A Roman could not be consul before forty years of the discipline of life. No wonder if the good time supposed to be coming for us all, comes in slow strides of forty years each, till the goal shall be reached. This is an unpalatable word for our impatient youth. Strange to say forty years ago it was a group of young men who preached something very like it and called it Fabian, we may say, Cunctatorial Socialism.

M. That group evidently got its cues from my papers. I have indeed in private letters dropped hints that 'changes effected rapidly by force' may sometimes be more permanent than the slow ones. (Ell., I, 162, *cf.* 131, 1851.) If readers wrest these sayings, it is to their own destruction. My ripe word is in favour of the progress made in the slower fashion, when we fasten on all the best features of our present institutions and improve them here and now. They may some of them improve themselves out of existence, by the growth of something better which has been grafted on them. It will long be the formula of moderate reformers that 'the words proposed by our revolutionaries to be left out stand part of our bill.' They stumble that run fast. There are many kinds of compromise not all of them admirable, not all of them ugly. I recommend no compromise with a generally admitted crime and evil. But all combinations of men imply some degree of compromise. (Diss., I, 165.) The good kind is for example a concession of delay where ignorance is the obstacle and eventual supersession of an

abuse will come by diffusion of knowledge to prepare the way before it. The ugly kind was that proposed by some American after the Civil War, by which slavery, a moral evil, was to be allowed in some states, forbidden in the rest. (Ell., I, 302.) Sometimes we ask much knowing we shall get at least a little. Pitch your claims high and some will be granted. So George Stephenson put his claim for his engine at ten miles an hour, knowing that if he had said thirty, nobody would have treated him seriously. (Ell., II, 210. St. Andrew's 15.) These questions, however, are rather of tactics than strategy; and I prefer to discuss strategy.

V. Now I can better understand why your third paper on Socialism pleased and displeased both parties equally. It pleased with its criticisms, of the other side, and displeased with its concessions, to the other side. You must have held the scales truly indeed.

M. Much the same, I am told, was said of my Essays on Religion. 'I speak as to wise men; judge ye what I say.' It is an English weakness for which we must make allowances, the love of compromise. (Ell., II, 378.) When I gave way to it in dealing with the Greater Britain about their Infant Industries I had reason to repent, and I repented accordingly. (Ell., II, 27, 57, 66, 116, 197, 298.)

N. Seeing no doubt that, like Peter Pan, the Infants had no desire to grow up. Nor have they done so since.

M. Even the English often make compromise a vantage ground for reaction. They may exchange false opinions for true, in the case of free trade, without throwing off the habits of mind that produced the falsities. (Aut., 238.) The statesman must always deliberate which is the path that at any given time he might, could, would or should pursue. To take only one step forward may be no ill compromise, but the true wisdom. We

must of course see to it that there is no going back. During my thirty years in the Civil Service, 1828 to 1858, I was learning something that told in all my political philosophy, namely the necessity of compromise, and how, on paper and in practice, we must save the essential by sacrificing the non-essential. (Aut., 85, 86.)

IV. You are thinking now of another kind of infant, *l'enfant terrible*, Socialism. In 1869, when writing those papers, you found it hard to forget that Louis Blanc and the St. Simonians were no longer our oracles. After all, you learned from them and Fourier and Robert Owen the importance of association and associations. Nobody has made those so prominent as you in Political Economy; and you are especially delighted with the Co-operative Union as a voluntary effort not a creation of Government. Yet you lament (Pol. E., II, XIII, 4, Ashley, 383), that small means 'produce no effect at all.' You despise the day of small things. You seem always uncertain on which to bestow the larger share of your admiration, the wonderful national character or the wonderful individual man. On the whole you think more of the individual man with his inviolate caverns. Not Carlyle or Ruskin or Matthew Arnold has censured English Society more severely (Aut., 58, *seq. contra.*, 261); French Society escapes. You praise individual Englishmen in the exceptional cases 'where an unusual tenderness of conscience leads to a habitual exercise of the intellect on questions of right and wrong.' (Aut., 59.) The English as a body are blamed for not wearing their heart upon their sleeve. You yourself can hardly be said to have done so till after your death, even at Falmouth. Perhaps you looked at the English a little more favourably when you were a little way off from them at Avignon in the later years of your life. Your friend Carlyle thought better of them than you: 'Stupidest in speech, wisest in action.' You question that? Well,

if they are inarticulate over everyday affairs, how could they intelligibly utter their deepest thoughts if they ever tried? But they might, as Carlyle says, be wise in action.

M. I do question that, both ways. They are not entirely stupid in applying principles, but they take the principles at second hand. (Diary, Ell., II, 357, 374.) I admit, with reservations, that they are wise in action, slow but sure. In 1869, I wrote that I knew they would do nothing rashly. I have personal reasons for knowing they are often just and generous, unexpectedly, and choose a man for Parliament even if he will not speak down to them and flatter them. I was elected at Westminster in 1865, on what many superior people thought an absurdly eccentric programme. (Aut., 282 to 284.)

N. Yes, you were brave enough to tell an unpalatable truth to a public meeting of workingmen, Richard Osler at the head of them, and to their honour they applauded you for it; and you sat for Westminster in spite of that incident and your advanced programme. (Aut., 282—4.)

M. It was, I think, a fair and moderate programme. (Ell., II, 22 to 26.) My own mind had been gradually prepared for the principles on which its details were founded. Even in 1830, I looked forward to a future which should unite 'the best qualities of the critical with the best qualities of the organic periods' to use the St. Simonian distinction (Aut., 163, 166), and though I thought France led the way I was far from confining consideration to French schemes (ib., 172, 174). So later in the papers on Socialism my several arguments apply to all countries of our state of civilization. I think less than most of my friends of the differences of Race. But I admit that the French are led away by phrases. Their economists are more numerous than ours but less profound, and even in Bastiat with all his merits prejudices come out. (Ell., II, 228, 347.) In our own country and everywhere else the great democratic

changes must for sureness and permanence be preceded by a change of heart in employers and employed; both must learn public spirit. I believe that common men in all countries have the capacity for that, and can learn to dig or weave for their country as readily as they now learn to fight for it. The hindrance is more in institutions than in human nature. (Aut., 232, 233.)

N. So said William Godwin. One might answer that those institutions were themselves created, aided, and abetted by human nature. But Godwin was thinking of laws and governments, you more of 'social arrangements,' bad schools, bad fashions, bad habits and traditions. Your oracle gets its interpretation from your essay on Liberty. Now, in spite of these hindrances, or rather in order to do away with them, is there a seed of public spirit left in us? A friend reminds me that Hallam writing in 1827, speaks as if it existed under the Long Parliament but not at the time of writing. (Constit. Hist., Pop., ed., 1869, Ch. IX, 364.) He says the Triennial Bill of 1640, was to secure that 'so long as a sense of public spirit should exist in the nation (*and beyond that time it is vain to think of liberty*) no prince could be free from restraint for more than three years,' a time too short for much mischief. In our own day and country it is not the monarchs that endanger liberty; they sometimes have the inward spiritual grace, as well as the outward visible sign due from them *ex-officio*. Their main fault is their expensiveness.

M. You are getting more out of Hallam's words than he put into them. We are not in the 17th century. The Triennial Bill might be security enough for a population of six millions, and not for one of thirty. The smaller the circle (and six are a small circle), the keener the interest in public affairs, for they approach more nearly to private affairs. Now it is private affairs that provoke the untaught interest of the ordinary man.

When we reach the greater circle, we laboriously acquire an interest in it by education. (*Diss.*, II, 47.) Some do not acquire it at all. (*Ell.*, II, 278.)

N. You mean that public spirit is an enlarged private zeal. I have read something like this in Burke, and in Adam Smith's *Moral Sentiments*, we hear of an enlarged benevolence. (3rd ed., 364.) But as to the drawback of greater numbers, our population was much more than thirty millions when I left, and yet a great many of your reforms, Mr. Mill, had donned jacket and trousers. Observe, there is only partial success, no embarrassing finality to revive your feelings of 1826. But perhaps you are disappointed whether you win or lose.

M. Disappointed? No, I should stalk off like Malthus with long strides. I am become a fool in glorying, you have compelled me. I wrote in 1861, that, when the organic or constructive movement really began my speculations on constitutional government might prove of some value. (*Ell.*, I, 246.) I was quite prepared for a very slow progress. Though I never entirely despaired of my country or the world, I sometimes talked as if, instead of coming with a thunder-clap, reform advanced at the pace of geological periods, none of them so short as forty years. In private conversation and letters I may have spoken differently.

N. Yes, in a private letter to an American friend in 1869, you wrote that 'the emancipation of women and co-operative production are the two great changes that will regenerate society' (*Ell.*, II, 172), and in your diary of 1854, that 'a slight change in education would make the world totally different' (*ib.*, 386). We have taken one step at least towards regeneration out of these three, namely the first of them.

M. Is the position of women reformed? For man or woman political power is the only security against oppression. Have

they obtained it? (Ell., II, 104, 1867: To Florence Nightingale.)

N. Reform moves faster than geological changes. Women vote for parliament, and at least in the Commons, sit in parliament. They take part in Government. You speak of 'the Toryism of sex.' (Ell., I, 208, 1858.) We may have something of this left. But we have the Ballot, which you disliked (Aut., 291); and we cannot tell with certainty how the women vote. Arago defined the Tory as the fixed point from which to measure progress. (Car. F., 34, 1838.) Nobody wears the name of Tory now; but it is believed that many women, even after their emancipation, are content to mark time.

M. In spite of my father, I did not like the Ballot, nor did I like the idea of payment of members, which I am told has been adopted. (Ell., I, 210, 1858.) But emancipation means more than the vote, or I wrote my Essay on Liberty in vain. It means 'the free direction and disposal of their own faculties.' (Subj. of W., 182, ed., 1870.)

V. Something has been done for this, Mr. Mill. Let me begin with the humbler achievements. You favoured the Factory Acts, though you say little about them in your Political Economy and make much of the invidious classification of 'women with children under those Acts. (P. E., XI, 9, Ell., II, 120.) Both women and children are better protected now. Higher careers are open to women. We have women doctors, lawyers, justices, mayors, presidents of great societies, and professors at colleges, where in almost all cases now they take degrees on the same footing as men. They are getting advantage from the open competitions for the Civil Service of which you so heartily approved. (Ell., II, 365. Repres. G., XVIII, 140.)

M. The open career will not of itself regenerate Society. The higher education is needful for women precisely as for men;

but they may make it tell in ways of their own. (Subj. of W., 1870, 105 *seq.*)

IV. You described the introduction of Industrial Partnerships as the other change which would immediately regenerate Society. You thought the world would be ripe for such before it could be at all ready for socialism. (Ell., I, 193.) The legal obstacles have been removed as you desired. (Diss., II, 215), but this reform is not yet in jacket and trousers; it is, let us say, in the jacket but not yet in the trousers, while, all the time, it is becoming more clear that the Tables are Turned on the employers. The 'labouring classes' have greater power both in Parliament and out of it than in your day. All the greater is their jealousy of real or fancied assailants of their independence. The House of Lords is hardly to be counted an assailant now, for though it has not been thoroughly reformed in the way you desired (Ell., II, 198-9), it has been bridled by the Parliament Act of 1911. Our democracy starts with one great advantage: all parties recognize that our judges are not corrupt, an opinion with which in spite of your youthful speeches in debating societies I feel sure you would agree. (Economica, March, 1925, speech of 1825.) It is not the law but the old prejudices that are the difficulty. There would be more of your industrial partnerships if the employers gave to the representatives of the employed the same confidences as are given to shareholders' representatives in an ordinary company. When the employed are made sure that there is no hiding or covering up, the plan of partnership is said to answer well even now. At first and a little time afterwards plans of this sort will need more intellect than is usually the share of ordinary men, employers or employed. The partners need not have the playfully imagined disinterestedness of the shepherds in the first book of Plato's Republic, or Ezekiel, XXXIV, 2, who fattened the sheep entirely for the sheep's advantage. But neither will they

see in all profits unpaid labour, as of eggs on the breakfast-table, certainly not produced for the producer's benefit. They will find that business ability is wanted even in the poultry-yard before the hens yield profit to their employer. Still, in those industrial partnerships at least, the hen is unmistakably mistress of the situation. She hatches and markets her own eggs and there is no exploitation for alien breakfast tables. The scheme as yet wants men who are forward by nature, or forwarded by education; we must provide education for both the bright and the dull, education in a broad sense, embracing morals and public spirit.

M. Yes, in both employers and employed there must be a moral education, and also the intellectual education in the elements, call it mere instruction, ought to be better than in my time. It was wretched then except in Scotland. (Diss., II, on Claims of Labour, 1845, 200 *seq.*) But the 'sourde animosity' of the employed towards the employers will not disappear till the first become partners of the second, and they must be educated to that end. (Diss., *ib.*, 206.)

V. In spite of many drawbacks, education is better now. Citizens generally, 'labourers' in the broad sense or the narrow, are better instructed now than in your time, and likely to do better justice to new opportunities in spite of the newness. The success of co-operation in shopkeeping has brought out a latent business quality in not a few of the 'horny-handed sons of toil.' You deplored the depredations of the middleman on the wages of the workman, far worse, you said, than any depredations of the capitalist. (P. E., IV, VII, Ashley, 789.) They have been checked all over the country for five millions of co-operators. This does not mean that we are very near your industrial millennium. The pace is set for co-operation, both productive and distributive, by the world outside with its competitive markets. A world where co-operation rules alone without lean-

ing on competition has been tried in Russia unsuccessfully. At present co-operation, like the Labour Party in 1924, is kept in power by the disagreements of other parties. It will be long before we are able to dispense with the rewards and punishments of competition. Hired managers may not obstruct experiments but they are not likely to push them. Without experiments, as you often tell us, there is no progress (e.g., *Socialism*, III, 517, 518). After you Jevons set greatest store by experiments, especially in legislation: he would try a measure locally on a small scale before applying it to the whole kingdom. (*Contemp. Rev.*, Feb., 1880.)

M. This seems better than tentative legislation for the whole kingdom at once.

N. Yet we have had a burst of the latter sort at the beginning of this century—acts for Social Services, Insurance, Pensions, Industrial Schools for example, and especially Public Health Acts relating to hospitals, maternity and child welfare. These, or at least the Public Health Acts seem likely to stay; the provision for the unemployed seems to have been worse administered. All such measures help the poor more than the rich; they therefore raised real wages at a time when nominal wages ceased to rise. So at least it has been ingeniously argued (by Prof. May in *Economic Journal*, March, 1927, p. 8, etc.).

M. It might have been difficult to try such experiments on a small scale; and you will remember I did not recommend it without exceptions.

N. No, I remember you would not allow unlimited liberty of 'currency juggling.' (*Diss.*, I, 42.) We have reformed that indifferently well with us. Though the jugglers are always with us, the balance of opinion is against them, even in Birmingham. The War carried us into a paper currency; six years of Peace carried us back again to solid ground (1925).

- M.* If there are rocks ahead, there are also steps ahead. Sad to say it is seldom my London that takes them, more often the North of England and the Midlands. But my London was probably sound on the Currency.
- V.* You may like to hear of the fortunes of your London in other connections. You and your friends desired one municipal government for London, not that you loved centralization, but you thought the English bias was unfairly allowed to tell against it even when the merits of the case were in its favour. (Ell., I, 235, year 1860, *cf.* 283 *contra.*) It is a general term, no more terrible than the Church and your other 'plundered abstractions.' In London I do not think it was the unfamiliar name but the too familiar thing that was disliked; the people preferred to administer the Poor Law in their small localities, and they hated central boards because these interfered with old liberties of action. Sometimes, it is true, a familiar ill-name like Socialism makes them start.
- M.* You were right in saying 'you and your friends'; others shared with me the desire for a government of London that should do better than the Metropolitan Board of Works of 1855.
- N.* In your day, Sir, all London outside the sacred City lay under Vestries. You thought in 1869, that one large body would excite the jealousy of Parliament itself (Ell., II, 183), from common false notions of the power of the Paris Commune. But if you had reached the years not of Methuselah but only of Bentham you would have found your idea carried out and even your reservations and safeguards in effect adopted. The Conservatives themselves adopted and passed a general scheme of County Councils for all Britain, in 1888. London outside the walls of the City was glorified as one County by itself, to the exclusion of the enveloping Middlesex and the rest. To relieve the 'centralization' we received from the same Conservatives in 1899, a group of Borough Councils doing the work

of the abolished vestries, missed but not wanted, as Temple Bar by the omnibus drivers. It was, as you had planned, one Municipality, so framed as to allow a chastened local activity; and the incubation of the idea has been shorter than you expected. (Aut., 286, 287.)

M. It is to be hoped that those who live in these later days will remember their known and unknown benefactors. (Ell., II, 386, 1854.)

N. Yes, Sir, it has been on the whole a real benefaction. It has in many ways rejuvenated Greater London, and roused a civic patriotism rivalling that of the Old City in the days of John Milton. It has made this greater area a better dwelling place for human beings. I cannot say there is no complaining in our streets, but the streets themselves are better; and provision of better houses for humble citizens has at least made a beginning. There is a cautious municipal socialism that falls in very well with your views. It is not at all confined to London, but exists say in Manchester, Glasgow, Huddersfield, and Birmingham. There are parallels overseas. Even the great centralizers, political socialists, far from being jealous of municipal, are proud to point to it as a forerunner. You might prefer to say that the great cities are playing a part like that of your favourite federalism.

M. I recommended that for France, especially as giving a good opportunity for social experiments. (Ell., I, 320, *cf.* 348.) She would then have been one, but not indivisible. There was something of the sort before the Revolution.

N. It seems strange to some of us that you did not recommend it for Ireland. You thought we were very bad governors of Ireland; you would have reversed the standing policy, and given the land to the men that tilled it, as during the French War General Hoche would have done if his expedition had suc-

ceeded, and his landing in 1796, had been followed by conquest. (England and Ireland, 1868, pp. 12, 20.) The Irish peasant would have become as the French is now, or as we have allowed the cultivator to be in some parts of India (ib., 22). But you thought the independence of Ireland neither possible nor desirable (26). You may be surprised to hear that Southern Ireland has now an independence, qualified by 'the personality' of a common monarch, and by a federal union, of both of which you then thought little (ib., 32, 35). Yet it was understood quite in your own manner as a step towards 'Universal Peace, grounded on federal institutions.' (Ell., II, 294.) You suggested a loan scheme for the buying out of the Landlords. It was adopted by a Conservative Government. A coalition between Conservatives and Liberals went farther and granted 'Home Rule' in 1922, after a great war and in presence of a great crisis in Irish affairs. The incubation lasted thirty-six years, and but for the War and the Crisis might have been going on still, though the War, that eventually hastened, at first delayed Home Rule. We cannot blame you for believing in what now seem half measures. We have had the special assistance of big political events.

M. Do not suppose that I thought Peasant Proprietorship a general panacea. I wrote in all editions of my Political Economy (IV, VII, 4, Ashley, 762), that it was pedantic to suppose agricultural improvement would come in the same way into all countries alike. But I thought Ireland needed the French system, while the plan of landlord and tenant seemed to fit ourselves as we then were. I put this Irish proposal forward as the thin end of the wedge, in the years of Famine, 1846, 1847; but no man regarded. Few had even heard of such a creature as a 'peasant proprietor.' (Aut., 235.) I have had my way now, but not at all according to any vision of mine in the final scene.

N. You desired Proportional Representation for all representative systems, to secure representation of minorities and thereby mitigate a little the tyranny of majorities, which is as odious to you in politics as in Society. The Irish Free State adopted it for its Lower House. You were generous in acknowledgments to Mr. Thomas Hare, and you were sometimes sanguine about the prospects of the scheme at large. It has not been entirely untried, but in Britain it is not yet in jacket and trousers, only in large blue books and certain Universities. (Repres. Gov., Ch. VII, Ell., pass im.) Its period may prove to be geological. It is at least an excellent topic for young men's debating Societies.

M. I may be serious. Without that safeguard, democracies are imperfect. My comfort is that the idea usually attracts the best men, and sometimes the best politicians. They recognise that in an ideal democracy minorities are outvoted but not suppressed. (Aut., 259.)

N. Another experiment may surprise you as much as home rule in Ireland. You seem to have expected failure in the Government of India when your East India Company lost hold of it. There is actually an experiment going on now in the Self-Government of India, a Dyarchy. (Repr. Gov., Ch. XVIII, Car. F., 920.) As a Radical, you must approve of it, and as a servant of the Company understanding the matter from the inside of its office you liked the Double Government, of Crown and Company. At present the Double Government is of Crown and Country. An admirer of yours, Mr. John Morley, has the credit of the first steps towards it. It is still on its trial.

M. What of Greater England, the dependencies overseas?

N. These 'dependencies' no longer 'depend'; they are children that have all grown up, without much help or hindrance from us for the most part. They are no longer Colonies but Domi-

nions; and your forecasts were justified. You regarded the spiritual bond between us and them as 'a step towards universal peace and general friendly co-operation among nations.' (Repr. G., XVIII, 133.) They are 'a group of nations forming the British Commonwealth of Nations' as is said in the Irish Oath of Allegiance (1922). You stood out for Durham and his claims for Canada, in 1837. (Aut., 216.) You had aspirations after an international understanding. (Diss., III, 153, on Non-intervention.) Since the Great War of the 20th century, we have seen the beginnings of a League of Nations, which is already drawing on its jacket and trousers. We remember that you wrote to Barclay Fox (Car. F., 421), in 1840 on 'the bestial antipathies between nations,' and to Cliffe Leslie in 1860: 'that there may one day be a kind of loose federation among the countries of Europe, and a common tribunal to decide their differences, is likely enough.' (Ell., I, 238, cf. II, 294.) This and a little more, has happened, though the Philosopher President, who set it agoing failed to carry his own country with him. Notwithstanding occasional shyness of the United States, it is as true now as in your day that we deal more frankly with them than with any other nation 'The ostensible causes of our disagreements are always the real ones.' (Ell., II, 296.)

M. In their great struggle I sided with Bright and Cobden in their support. As you know I am not an advocate of Peace at any price. (Ell., I, 292, cf. 133.)

N. You went farther than Bright and Cobden in many matters. You would not have bound yourself, as Cobden did, to go no farther than Adam Smith in Land Reform. The land was not made by the landlords and should (you said) belong to the State. (Ell., II, 123.) You have given us many household words in philosophy and politics. Among the political are the 'stupid party' (Repr. G., VII, 56 note), and the 'unearned increment.' The 'stupid party' has disappeared with the Tories.

The other phrase is still with us. You applied it to rural as well as urban incomes. (Ell., II, 264, 313-4, 340, 390.) Agriculture since you left us has for the most part had dull times and no increment. The problem of city property, where speaking broadly there have been no dull times, has occupied us very often. Henry George came to us forty years ago from California to preach the redemption of all peoples by the nationalizing of all lands. He went in the same direction as you, but would have us go very much faster. (Ell., II, Append. B.) The idea is still in process of incubation. We are more severe taxers of all rich people, especially after their death. Our great achievement, quite acceptable to you, Sir (Ell., II, 315), is a Death duty, making the heirs of a multi-millionnaire (of over two million) give up 40 per cent to the Exchequer, and lesser fortunes in less (but still fiscally profitable) proportions. The result is a certain diminution of overgrown properties. But the unearned increment in its own right remains substantially where it was, in spite of a promising measure begun and dropped just before the War. It must be said that Taxation as a whole body and system is better understood and better adjusted in our day than in yours. The improvement has been assisted by an economic principle called Final or Marginal Utility, hardly discoverable in your Political Economy, Sir, though Edgeworth's microscope found a trace of it. (II, ii, §4.) Jevons and Marshall made it prominent in theirs. In our Income Tax as in those Death Duties we may be said to exempt necessities as you prescribe (V. II, 3, Ashley, 806); and we apply the progressive scale which you deprecated (ib., 808), declaring it a punishment of industry and thrift. You desired retention of the House Duty, to catch something of the unearned increment; we have lately, they say, abolished it altogether. You desired to contrive a tax on expenditure. (Ell., II, 307, 317). It has been tried, not very happily, elsewhere; we have not adopted it.

M. You mean that some of my ideas have been carried out in substance, none in detail.

N. It is the substance that matters. There are few more successful reformers than yourself. Even your 'Malthusian heresy,' with details altered, is now almost an orthodoxy. (Pol. E., I, x, II, xii, xiii, 89. Bain, J.S.M. Ell., I, 142, II, 127.) I do not know that co-operation has taken particular care of the matter as you fondly expected (Ell., I, 269), but the civilized world in general shows signs of attention to it. It was not always of sufficient concern to the finer wits of your own day; your own father, 'advanced' as he was, did not at first show the way. (Aut., 3.)

M. For common delicacy forbear. I have never defended him; I have denounced those who follow his example. (Pol. E., II, XIII, 375, note.)

N. O, Mr. Mill. I shall most certainly forbear. You were the eldest of the nine (Bain, J.S.M., 61), and were safe in any case. If, as some heretics do vainly talk, Credit is Capital, surely Youth and Talents might easily seem to your father to be so, and therefore to justify him, with more cause than the *Vicar of Wakefield*, in refusing to remain single and only talk of population. You, yourself, Sir, did not seize every occasion for showing the way. You say nothing of the subject at St. Andrew's, when pressing the young men to study Political Economy (69, 70). Perhaps the warnings of Malthus were included in your allusion to the unfeeling laws of Nature that will break even the righteous neck when disregarded. Your University programme, like the old Arts programme of the Scotch Universities, would include classical literature, philosophy and the outlines of science. It was not heretical for those days; it may be so now. You were perhaps thinking of your own ready acquisition of Latin and Greek in your teens; you never will believe yourself precocious and abnormal; and you ask 'Is the human

capacity to learn measured by the capacity of Eton and Westminster to teach? ' Even the poor Scotch student learns a saving amount of your subject, retrieving the backwardness of *his* teens during his four years of college, where he cultivates philosophy on a little oatmeal. Our Pundits at the Universities take a more modest view of human powers, and, to use your own metaphor, have for the most part given up the attempt to make both coat and trousers. (Address 12.) Even in the new provincial foundations, Manchester, Leeds, Bristol, special studies, nearly or wholly professional, are allowed to begin earlier than you would have liked.

M. I warned the lads that ' Too narrow a view of the possibilities of education narrows our conceptions of the future of mankind.' (Addr. 16.)

N. It may mollify you to hear that we give University graduates an extra vote, thereby carrying out, I admit, somewhat feebly, a favourite idea of your own. (EM., I, 290, Repr. Gov., Ch. VIII, 72, 73, etc.) A better atonement is the general influence of the provincial institutions themselves, spread far more widely over the country now than in your day and enabling every poor man that has the will to get something in the shape of ' higher education.' I do not think you would repeat the doctrine of your article on Civilization that the advance of the masses crushes intellectual energy. You will allow that De Tocqueville's forecast of a stagnant uniform America has hardly been justified there. Both there and here the types of men and districts remain varied, unlike each other and thereby stimulating each other, democratic as they are.

M. You are beginning to sing the praises of the present. The Past and the Absent are always in the wrong. But your defence means only that we are no worse than our ancestors.

N. Still, Sir, you are the last man to undervalue new opportunities and new machinery, whether for material progress or

intellectual. Since you put this Present on its defence, I submit that materially we are much better than you were in the forties, and spiritually a little better, even though that cometh not of observation, like high wages, and electric lighting. It is perhaps significant that good music has larger audiences than in your day, and cheap literature of a good sort has a large circulation or the publishers would not publish it, also that with us and still more in America any and every lecturer even on profound subjects finds hearers.

M. Cobden wrote to Francis Place in 1846, 'You have lived through by far the most eventful seventy years in the world's history.' (Life of Place, by Wallas, 396.) He was no doubt excited by the victory of Repeal; but could any one looking back now over seventy years say as much?

N. You remember that when the patient in Bedlam said to the visitor, 'I am the Emperor of China,' his keeper whispered, 'They all say that, Sir.' What was it that Place had seen? Cobden's words are: 'Bless yourself that you live in times when reform bills, steamboats, railroads, penny postage, and free trade, to say nothing of the ratification of civil and religious liberties' (in which you have helped), 'have been possible facts.'

M. There is no one to match the praiser of his own time for exaggeration. I am told that Cobden added 'The fifty years during which you have been an observer of public events have been more fertile in great and enduring incidents than any five centuries I could select.' If he did not set much store by the Reformation and Renaissance, he might have remembered the Discovery of America, without which much of his own occupation were gone.

N. Yes, they all say that; and I shall try not to glory in having lived seventy years after Francis Place and fifty after you, Sir.

But we have not been behind our ancestors in material improvements and inventions. It is the age of the aeroplane. Science has found out the secrets of heights and depths unconquered in your day. Both Poles have been visited and there are no longer any solitudes.

M. So much the worse, to my thinking.

N. Let me go on and you will be better pleased. Medical skill is better. We are nearly as successful now in curing as in killing. As for our political achievements in the world at large, we have more than doubled last century's number of popular governments in Europe. We have a new plan for training backward peoples elsewhere for self-government. They become 'mandatory states,' instead of subjects. This idea 'new under the sun,' was produced under that brilliant novelty the League of Nations, which is champion of the minorities and weaker powers. In our own country political liberty has gone from strength to strength, I confess with too little regard for your particular clients the minorities. The autonomy of the individual, if no better off, is no worse off. When all is said, I admit that we are unprofitable servants; it was no glory to do all this with so much unused power to have done more. But is not this neglect chargeable against every Present Time, so long as all men are mortal?

M. You have said little of the spirit, intellect, patriotism, scientific study, leaders of thought, poets and artists. We were hungry for great men of all sorts in my time, and I joined in Carlyle's laments. (Ell., I, 34 and 40, 1833, to Carlyle 1832.) It seemed to me (in that year of Reform) that the world was becoming 'a dead flat.' I thought I should lose all interest in the world if there were not two or three persons of such high quality that they redeemed it from total barrenness. There were few such in my own day. But I was not always so

despondent, at least in my Books. Perhaps I was most so in my youth (e.g., *Diss.*, I, 97, 1835).

- V. We judge you, Sir, by the words of your own publications, your ripe considered judgments on any matter. In reminiscences and letters we often too plainly recognize the spur of the moment, or the curb of ill health. No man is heroic at all moments. The public sees the hero in his heroic moments, which are, say, a tenth of the whole. Your valet sees you in the other nine, and makes the most of the observations which bring you down to his own level. Your correspondents were of higher quality than the valet; but still your dicta to them are your apocrypha, not your canonical scripture. Please believe that I have been questioning you not in the manner of an Astute counsel lying at the catch, but as an inquiring spirit seeking light, in a wholly deferential manner.
- M. Carlyle's Heroes did not get my ripe considered word in their favour. They might help the world perhaps if there were always two of them together as rivals, to checkmate each other and undo the bad effects of autocracy, (*Ell.*, II, 384, diary, 1854); but this seldom happens.
- N. It is Gibbon's notion, of dividing the allegiance of those who rush to slavery (*Ch.* I, XVI, end). Your De Tocqueville thought that democracies did not of themselves bring forward the best men (quoted in *Diss.*, II, 30). Perhaps the best men do their work without being 'brought forward.' While we were waiting for them, they may have been silently doing the things we wanted. What says Guizot quoted by you? 'Things in England are greater than the men accomplishing them.' (*Diss.*, I, 98.) Some men, called small, were in fact accomplishing the things. So said Mommsen of Republican Rome 'Ordinary men, extraordinary deeds.' In spite of Carlyle it may turn out that in politics, now all-democratic, the superman is a superstition and superfluity. We should surely be well

served by citizens otherwise 'ordinary' if they had your passion for public service and at the same time your devotion to personal liberty, the free growth of each man's talents. This means for men like you an embarrassing alternation of 'solitude and public employment,' an old dilemma. Duty called you to both, Mr. Mill. In which of them did you find your Greater Happiness?

But the lover of Solitude had already regained it.

THE BOMBAY MILITARY SAVINGS BANK

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(Based on unpublished manuscript records.)

It is indeed a pity that no historian of Indian Banking has drawn attention to this institution. My first attention was drawn to this subject when I studied in detail, the history of the Bengal Military Savings Bank and its chequered fortune. Except an occasional mention of it, the contemporary Asiatic Journal even, does not furnish the details of its actual starting, the object of the Government in starting it, the period of its existence, its management and other informative details from which the present generation might hope to draw any interesting lessons. While the transactions of the Bombay Military Fund, which should not be mistaken for the Bombay Military Savings Bank, are freely quoted in the Public Proceedings of the Bombay Government, even a casual reference to its existence is not forthcoming. The Index to the Diary and Consultation Book does not mention this as a separate item. While the Government Saving Bank's transactions are fully recounted every year, the details of this institution have escaped the attention of the observers. It is indeed a pity that even the Military Consultations do not pay enough importance to this institution and there is no separate compilation of its records on this subject.

Origin of the Bank.

The starting of the bank was due to the loss sustained by a non-commissioned officer, whose baggage was plundered by the Bheels. One Havildar Major Davising of the 1st Grenadier Battalion Regiment lost, while on his march from Pintsae to

Meywar, about Rs. 357 “ which he acquired within a period of nineteen years.”¹ As soon as the said loss was reported and compensation claimed by the Major, a Court of Inquiry was held, which came to the opinion, that the petitioner had the money, which was lost, when the baggage was plundered by the Bheels. The Commander-in-Chief was requested to consider the advisability of opening a Savings Bank for the native sepoys, so as to provide a safe place for their savings. On his forwarding the full correspondence with reference to the abovementioned incident, a Committee was appointed “ to report on the best mode for carrying the arrangement into effect.”² The Deputy Accountant General, the Military Paymasters at the Presidency and the Military Officer Commanding the Mhow Battalion were requested to serve on the above³ Committee and after deliberating for a period of three months it wrote out a report considering the advisability of the starting of the Military Savings Bank for the native sepoys.⁴

General orders were passed carrying into effect the above recommendations and as the preamble to the orders briefly recounts the object in starting the Bank, it is worth while to quote its exact words in this connection :

“ Applications and claims having been at various times preferred by sepoys for loss of money carried about their persons or with their baggage and it being impossible and contrary to every principle that Government should be accountable for private property carried about at the caprice of individuals, yet being desirous that the sepoy should be afforded every facility in the

¹ This incident happened on 14th April, 1827.

² The original plan mentioned in the G.G.O. was altered by the Committee and the initial deposit of Rs. 25 insisted upon by the G.G.O. was reduced to Rs. 5 by the Committee.

³ See Military Consultations—1st April, 1829—Nos. 165 and 176.

⁴ For a draft report of the Committee's findings see Military Consultations, 1st April, 1829; and also Nos. 42 and 43 of 15th July, 1829.

way of depositing his savings in a place of security" it was determined that a savings bank should be started for them.

The Plan of the Bank.

Any sepoy, who desired to deposit a sum of not less than Rupees Five, may forward it with an application, through the officer commanding his Company to the Paymaster of the Regiment who will grant him a receipt for the amount countersigned by the Commanding Officer upon which an interest of 4 per cent will be allowed from the day on which the total deposit sum accumulated to Rs. 25, provided that it is not called for within three months.

The Paymaster of every Corps on the receipt of such deposits is to prepare at the end of each month a list in duplicate of the names of the sepoys who may have made a deposit and the companies to which they respectively belong specifying in a column against each individual name and the sum deposited by him with the date and pay over the aggregate amount to the Paymaster of the division or district who will remit the same immediately to the Sub-Treasurer by draft on the Military Accountant accompanied by a detailed list.

It was also determined that as soon as the deposit of any individual sepoy shall amount to Rs. 100, the Sub-Treasurer will upon application from the Regimental Paymaster, through the Division or District Paymaster transmit the usual Treasury bill or other Government certificate in each man's name (bearing 4 per cent interest per annum) to that officer, who will deliver it to the Regimental Paymaster for the purpose of being substituted for the receipts first granted which are then to be considered as cancelled.

Provision was also made for the withdrawal of deposits and "should any sepoy require to withdraw a part of his money provided it was not under Rs. twenty-five, he was allowed to do so. A receipt in duplicate specifying the name of the sepoy

bearing the counter-signature of the Commanding Officer and Paymaster of the Regiment being presented to the Division or District Paymaster or the Collector in the absence of these officers; he was to charge the same to the Territorial books."

The payment of annual interest on the deposits was to be discharged in a similar way.

The following documents were drawn up to facilitate the above transactions and the whole book-keeping of the Military Savings Bank consisted in filling up these documents carefully. The documents are self-explanatory and need no further comment.

A

REGIMENT NATIVE INFANTRY

List of sums deposited by sepoys in the Regiment for the month——of——under sanction of G.G.O., dated——.

Names	Company	Date of Deposit	Amount	Remarks

Total deposited Rupees——.

To the Paymaster

——Division

AA——

Paymaster-Regiment.

A copy of the above document was to be sent to the Commanding Officer of the Regiment itself. This was evidently meant as an internal check ensuring prompt and correct entries.

B

SEPOY SAVING FUND

List of sums deposited by Corps serving in the Division of the Army under sanction of the G.G.O., dated——for the month of——.

Corps	Names	Date of Deposit	Amount of each	Total of each Regiment	Remarks

Total Rupees——

The B form is thus a consolidated statement giving an accurate idea of the total savings made by the sepoys in the Army as a whole.

Deposit Receipt.

While the originally formulated plan did not contemplate the issuing of a separate deposit receipt, the Committee which made several minor improvements in the original plan suggested the issuing of a deposit receipt to each individual sepoy making the deposit.

“ I hereby certify that sepoy.....of the Company of theRegiment Native Infantry has under the G.O. ofpaid into this office the sum of rupees twenty-five which is to bear interest at 4 per cent from.....being three months from the date of the last payment made by him to complete that sum.”

Bombay.....

AB

Division Paymaster

Other Regulations.

The possibility of outsiders depositing sums in the sepoy savings bank under false names was also not ignored. It was guarded against by declaring that the said deposit would be confiscated, as soon as it has been detected that an outsider has made the deposit.

It must not be considered that such a regulation was meaningless and altogether unnecessary. Even the present-day Post-Office Savings Bank did experience a lot of trouble by the depositors opening several accounts in order to overcome the actual maximum deposit limit.

Its Actual Achievements.

On 7th April,⁵ 1830, the Bank was formally inaugurated. But adequate and sufficient precautions were virtually taken before its actual starting, so that the sepoys might not fail to take advantage of the above institution. The G.G.O. was translated into the Maharatta and the Hindustanee languages. The whole scheme was also systematically explained to the sepoys at the monthly muster parades. Forms A, B, and forms of the deposit receipts were lithographed and circulated to the various Paymasters in the manner proposed by His Excellency the Commander-in-Chief, on 2nd April, 1829.

Attempt at Extension.

The advisability of extending the savings bank was discussed in 1832. The Chaplain at Poona, Mr. D. Young suggested the desirability of extending the Bombay Military Savings Bank to European Troops and the raising of the rate of interest to five per cent. Mr. Thomas Carr, the acting Archdeacon, while forwarding the above letter, suggested the necessity of adopting these

⁵ See Military Consultations, No. 26, 7th April, 1830. Letters were despatched to the Accountant General and the Sub-Treasurer informing them of the general orders with reference to the establishment of the B.M.S. Bank.

measures. This letter which was addressed to the Bombay Council was promptly referred back to H. E. the Commander-in-Chief who after considering the above letter in all its bearings thought that the plan would be a failure.⁶ The Bombay Council held the opinion that the plan could be easily extended to confer the benefit on European soldiery also, but placed the matter solely at the discretion of H.E. the Commander-in-Chief.⁷

Evidently the success of the above petition prompted the Hospital Assistants attached to the Army to forward a similar request for the purpose of entitling them to the benefits of the Savings Bank.

This request was promptly forwarded to the Adjutant-General⁸ who in turn despatched it to the Military Auditor General, who placed the matter finally before the Military Board. On 6th November, the Military Board passed orders refusing "to extend this coveted privilege to anyone else."⁹

Abstract Report of the Regimental Savings Bank—1833-34.

As every new measure had to be submitted to the Hon'ble the Court of Directors at home for their perusal and ultimate approval, the starting of this Savings Bank was duly reported by the Bombay Government. The Hon'ble the Court of Directors requested the Bombay Government to furnish it with an idea of its operations.¹⁰

The following abstract report was furnished in reply to the Hon'ble the Court's request. It can easily be gathered that it was no distinct success and it was only very few sepoys that took advantage of this measure.

⁶ See Military Consultations, No. 1054.

⁷ See Military Consultations, No. 1056.

⁸ See Military Consultations, No. 4945, 23rd October, 1833.

⁹ See Military Consultations, No. 4946, 6th November, 1833.

¹⁰ See para 12 of their letter, dated 30th March, 1831.

Bombay Adjutant General's Office, 10th February, 1832.

Corps	Substance	Remarks.
1st Regt. of Light Cavalry	No instance has occurred of the Savings Bank having been taken advantage of by any of the Native Commissioned or Non-Commissioned officers or troops.	
2 " " "	No sepoy offered to deposit even one rupee	
3 " " "	" " "	
Golundaze Battalion	" " "	
1st G. Regiment N. Infantry	" " "	
2nd " " "	Only one Native Officer made a deposit of Rs. 600.	
3rd " " "	No deposit by any rank in the regiment.	
4th " " "	" " "	
5th " " "	" " "	
6th " " "	" " "	
7th " " "	" " "	
8th " " "	" " "	
9th " " "	" " "	
10th " " "	" " "	
11th " " "	" " "	
12th " " "	" " "	
13th " " "	" " "	
14th " " "	" " "	
15th " " "	" " "	
16th " " "	" " "	
17th " " "	" " "	
18th " " "	" " "	
19th " " "	" " "	
20th " " "	" " "	
21st " " "	Only one individual Jemadar has taken advantage of this.	
22nd " " "	No deposit by any rank.	
23rd " " "	" " "	
24th " " "	" " "	
25th " " "	" " "	
26th " " "	" " "	
Marine Battalion "	" " "	
Native Veteran "	" " "	
Guzerat P. "	" " "	
Engineer Corps "	Only one Havildar deposited Rs. 225 ; one sepoy deposited about Rs.60.	

(Sd.) J. KEITH, MAJOR

Acting Adjutant General of the Army.

The main reason, why the Commander-in-Chief seriously doubted the utility of extending the Savings Bank to the European section of the Army, is now apparent. He was of opinion that the response would be indeed as poor as that on the part of the sepoys.

Reasons for the Paucity of Deposits.

The success of a savings bank depends on two factors. Firstly, there should be savings on the part of the people. Secondly, there should be willingness to entrust the same to savings institutions. A Government-managed Savings Bank can necessarily create the needed confidence on the part of the people and though the will to save might exist the power to save might be non-existent. The low salary paid to the Native Sepoys is the sole reason for the lack of savings deposits on their part. The miserable pittances paid to the sepoys, the zemadars, the havildars and the subedars must have precluded the possibility of any saving on their part. A reference to the Minutes of Evidence recorded before the Select Committee of 1832-1833 gives us an idea of the low pay of the European and Indian troops. The actual expenses to which the Company was put to were as follows in 1830.

EXPENSES PER HEAD

Province	Cavalry		Artillery		Infantry	
	European	Indian	European	Indian	European	Indian
	£	£	£	£	£	£
Bengal ...	100	64	61	28	59	30
Madras ..	109	90	81	45	68	35
Bombay ...	107	87	90	46	67	32

The total expenses must not be mistaken for the actual pay granted which must have been far lower than it. With very little power to save, they could hardly have saved any decent sums, for they had to support their relatives and connections.

When was it closed.

With the opening of the Bombay Government Savings Bank¹¹ the state of things became different and in order to save the incidental worry on the part of the military officers, it was soon decided to close the Bombay Military Savings Bank. The Bombay Government soon closed the Bombay Military Savings Bank and gave the option to the depositors to transfer the account including the interest to the Government Savings Bank or withdraw it altogether as all interest would be discontinued from 1st May, 1839.¹²

The Reinauguration of the Regimental Savings Bank in 1854.

With the view of offering increased facilities for depositing their savings, the G.G. of India in Council¹³ directed the establishing of Regimental Savings Banks in each Brigade and Battalion of the European Artillery and in each Regiment of European Infantry at the three different Presidencies.

These Regimental Savings Banks which began their business on 1st February, 1854, were really branches of the Government Savings Bank and all balances of the soldiers¹⁴ in the Government Savings Bank were transferred to the books of the Regimental Banks.

¹¹ It was instituted in May, 1835.

¹² See the Government Notification, dated 11th March, 1839, of the Bombay Castle (quoted in the Asiatic Journal), June, 1839, p. 147.

¹³ See the Notification of the Bombay Government in the Bombay Castle Gazette, 26th January, 1854.

¹⁴ See Clauses 31 of the above Notification.

The plan of its working,¹⁵ book-keeping¹⁶ and accounting¹⁷ methods adopted in the running of the Regimental 'Savings Bank' were more carefully drawn than in the case of the Bombay Military Bank.

Attention must however be drawn to the most important and new features attached to this organisation. Firstly, there was the right to remit the deposits to their families residing at Home at the rate of exchange of 2s. $\frac{1}{2}$ d. for every rupee.¹⁸ Secondly, the consideration of the deposit sum as a trust fund was stated both explicitly as well as implicitly. This conception was so thoroughly enforced that "whenever the Officer commanding the Troop or Company shall have grounds for believing that the soldier intends to make an improper use of his money he will be permitted to withhold the privilege of withdrawing the deposit until the commanding officer of the regiment shall determine whether it should be issued or not and should the officer commanding deem it essential to withhold from a soldier, the privilege of withdrawing his deposits, he shall report specially to the Commander-in-Chief the circumstances under which he has felt himself compelled to exercise this power."¹⁹

While the idea of trust was indirectly enforced by such salutary measures, it was more openly and directly stated in another clause as follows²⁰:— "All monies deposited by the soldier in the Regimental Savings Bank shall be held strictly in trust for his own use and benefit and shall on no account be transferable to any third party, either by endorsement, conveyance or otherwise and shall not be affected by any debts contracted by him, nor be made available for any purpose whatever except under

¹⁵ See Clauses 1 to 5 of the Notification.

¹⁶ See Clauses 11, 12, 13, 15, 17, 19, 20, of the Notification.

¹⁷ See Clauses 14, 16, 18, 19, 24, 30 of the Notification.

¹⁸ See Clause 26 of the above Notification.

¹⁹ See Clause 6 of the Notification.

²⁰ See Clause 7 of the Notification.

his own order, signified to the officer commanding his troop or company and such monies shall if possible be paid to the soldier personally and in all cases his receipt shall be obtained and shall be attached to the Troop or Company's Savings Bank Ledgers."

It is inexplicable why this idea of Trustee Savings Bank was not grasped by the Indian public. In other countries²¹ Savings Banks of different kinds exist and the Trustee Savings Bank is one important type which gathers a large volume of savings and invests the same safely through its own Investment Department. In present-day England, the Commercial Banks consider them as "formidable competitors" tending to encroach on their own legitimate sphere of work.²² In this unfortunate land this original idea was not developed and no trustee savings banks have arisen up till now. If the task of mobilising the capital of the country is to be efficiently discharged, the creation of such trustworthy agencies cannot be postponed for any length of time. Acting as "feeders" to the money market, they can easily fill the gap where the field is not adequately covered by the Post Office Savings Bank or the Co-operative Credit Society.

Another reasonable privilege which the Post Office Savings Banks ought to confer on the depositors is the privilege of exempting the deposit from being available to the creditors of the depositor-borrower. The deposit or a portion of it should not be made available or answerable for any of the debts contracted by the depositor. Unless this valuable privilege, which the Regimental Savings Banks once conferred on their depositors, is resuscitated, there is no great hope of increased savings being attracted by the present-day Post Office Savings Banks.

It is often stated by some of the historians that the administration of the John Company did not pay much attention to the welfare of the children of the soil. Taking the instance of the

²¹ See H. G. Moulton : *Financial Organisation of Society*.

²² See the Article on "Trustee Savings Banks," June, 1929, *The Banker's Magazine*, London.

Bombay Military Savings Bank into consideration, it clearly follows that these vague apprehensions and charges are untrue. Every serious student of the history of this Bank must admit that the welfare of the native sepoys actuated the Government to open the above institution.

AN EXPERIMENT ON THE IMPROVEMENT OF THE ECONOMIC RELATIONS BETWEEN LANDLORD AND TENANT IN THE UNITED PROVINCES

BY

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Introductory.

While a good deal of attention has in past years been given to collecting statistics of crop yields, tenant indebtedness and tenant classes, the problem of finding a way by which the tenant might increase production to mutual advantage of landlord and tenant does not appear to have been tackled seriously yet. As far back as 1877, a Memorandum was published on Agriculture in the district of Cawnpore by a Settlement Officer, who took to a great deal of trouble in collecting data with regard to the economic condition of the tenant in a part of the district. This publication is unfortunately out of print; but it provides a useful basis for work of this nature. Recently the Board of Economic Enquiry, Punjab, have published the results of some valuable work of the nature of village surveys bringing the reader into close contact with the domestic, social and economic life of the inhabitants of a Punjab village. Stewart of the Punjab Agricultural Department has gone further providing useful data in the shape of a publication on the accounts of different systems of farming in the canal colonies of the Punjab. Calvert also has written a pamphlet on the size and distribution of cultivators' holdings in the Punjab. But although useful to the student of tenant economics none of these publications penetrates far enough into the vital question of improving the system which unites landlord and tenant on the important field of agricultural production.

The United Provinces provide in this direction suitable opportunities for research, being agriculturally perhaps the most important province in India, where the conservative element among its landlords is so strikingly evident. Comparatively recent legislation in these provinces has given the tenant a large measure of security and stability which makes it all the more desirable that research in the direction indicated should be carried out. A tenant whose stability is assured is much more likely to provide opportunities for careful observation than one who has no permanent interest in his holding.

Objects of Experiment at Cawnpore.

An experiment was recently started on the Agricultural College Estate at Cawnpore with the following objects:—

I. To find out to what extent it was feasible for the landlord to assist his tenant with the undermentioned capital goods:—

- (a) Advances in cash for the purchase of good bullocks,
- (b) Manure for the transport of which the landlord is better able to make arrangements,
- (c) Facilities for irrigation,
- (d) Provision of fuel wood for consumption in place of dung cakes, thereby conserving the latter as manure,
- (e) Provision of improved seeds and implements.

II. To find out how the Batai system of rents compares from an economic standpoint with cash rents.

Brief summary of results so far obtained.

The experiment was started in the Kharif season, 1927, when three tenants were given land on a Batai rent system on the Agri-

cultural College Farm. The selection of tenants was made out of the best agricultural classes in the district preference having been given to individual merit. The area given to each tenant varied from 5 acres to 5·6 acres, all the area being flush irrigated by canal water supplemented by flush irrigation from a tube-well on the farm. The name of the tenant, his caste, area given to him for cultivation and the date when he first commenced operations on the farm are as follows:—

Serial No. of tenant.	Name.	Caste.	Area given.	Date when operations were first started.
1	Sultan	Ahir	5·0 acres	1-7-1927
2	Sutjan	Lodh	5·74	3-7-1927
3	Sunder	Ahir	5·8	29-6-1927

The amount of land given was fixed on a basis of capacity for work and the approximate requirements of the tenant and his family. The tenants' accounts were kept by a member of the Farm Staff and included details of cost of production of crops.

The crops actually grown by the tenants included the following:—

Kharif:—Maize, Juar, Arhar, Bhindi and Turai.

Rabi:—Wheat, Barley, Gram, Lahi and Sarson.

The crops grown therefore were such as an ordinary tenant in these provinces is accustomed to grow. The raising of expensive crops like sugar-cane, potatoes and tobacco was not undertaken by the tenants probably due to their not being acquainted thoroughly with the methods of cultivation. The number of members of the tenants' families which helped each tenant in the

work of cultivation and which depended on the produce of this land for their living was as follows:—

Serial No.	Name of the tenant.	Number of family members.
1	... Sultan Ahir	2 (tenant and wife)
2	... Surjan Lodh	3 (tenant, wife and a child 10 years old)
3	Sunder Ahir	3 (tenant, wife and a child 8 years old)

The following statement shows the condition of indebtedness as well as sources of income other than that derived from the holding on the College Farm:—

Serial No.	Name of the tenant.	Indebtedness.	Sources of income other than the cultivation of land on the farm.			Total amount earned during one year.
			Average return per year from cultivation of land	Yearly receipt from sale of milk.	Auxiliary occupation.*	
		Rs.	Rs.	Rs.	Rs.	Rs.
1	... Sultan Ahir	100	125	400	175	700
2	... Surjan Lodh	150	350	260	175	725
3	... Sunder Ahir	50	100	...	175	275

Each tenant with his near relations lived as a joint family in a village about a mile away from the Farm. The reason why they preferred to reside there rather than on the farm was that some of the near relations were engaged in other occupations such as keeping milch cattle and cultivation by the cash rent system in the village where they resided.

*As far as can be ascertained.

Brief account of the experiment.

During the two years that observations have been made on the experiment, it has been found that the Batai system of rents on a half and half share basis is on the whole more remunerative to both landlord and tenant than cash rents. This is borne out by the following comparative statements:—

(a) Statement of gains of Farm tenants on the Batai system.

Serial No.	Name of the tenant	1927-28.				1928-29.			
		Total area.	Approximate rent on cash system.	Net gain per acre.	Rent on half share system.	Total area.	Approximate rent on cash system.	Rent on half share system.	Net gain per acre.
		Acres.	Rs.	Rs.	Rs.	Acres.	Rs.	Rs.	Rs.
1	Sultan Ahir ..	4.0	100	25-15	163-12-9	5.0	130	122	24-6
2	Surjan Lodh .	5.74	153	45-2	258-10-10	5.74	153	198-9-10	34-12
3	Sunder Ahir..	5.80	168	49-10	287-12-7	5.80	168	281-2-6	10

(b) Statement of gains of tenants on neighbouring private estate on the cash rent system on similar land.

Village.	Name of cultivator.	Area.	1927-1928.				1928-29.			
			Total income.	Total rent paid.	Total net gain.	Net gain per acre.	Total income.	Total rent paid.	Total net gain.	Net gain per acre.
Madari-pur.	Madari Ahir	5.0	2.5	100	195	39	225	100	125	25
"	Govind Lodh	3.0	190	75	115	38.5	130	75	55	18.5
"	Mahabir Ahir	2.5	125	62.8	62.8	25	112.8	62.8	50	20

(2) The system of making advances to the tenant in the shape of grain and seed has proved satisfactory. So long as the tenants' crops are in the fields and on the threshing floor, the landlord has sufficient security against any advance made within limits. By this method the tendency for the tenants to get into debt appears to have been checked as is indicated in the following statement:—

Serial No.	Name of the tenant.	Indebtedness when he first occupied farm plots.	Present indebtedness.
1 ...	Sultan Ahir ...	100	100-0-0
2 ...	Surjan Lodh .	150	122-5-9
3 ...	Sunder Ahir ...	50	90-0-0

(3) Advantage is taken by the tenants of facilities for irrigation apart from the supply of canal water which is often spasmodic.

(4) The manure which is produced by the tenants' bullocks is actually conserved when fuel wood is substituted and supplied by the landlord.

(5) Advances in cash have not been demanded by any of the tenants so far.

(6) The cultivation carried on by tenants under advice and assistance from the landlord in the shape of advances of improved seed and loans of implements is of superior quality showing gradual improvement of the soil and better results in production.

(7) The tenants appear contented and happy and are provided with an incentive to hard work and thrift.

General Observations.

It is extremely difficult to conduct an experiment of this nature on a Government farm because conditions are somewhat different to those prevailing on Zamindari and Taluqdari estates in the United Provinces. It is probable, however, that such conditions as prevail on a Government farm can be imitated on the above estates with advantage to both landlord and tenant. In the matter of supplementary irrigation, the supply of manure,* the substitution of fuel wood for cow dung,* the advances of improved seed and loans of improved implements the landlord stands to gain rather than suffer by making a small capital outlay in providing the necessary organisation for the carrying out of these objects. It is premature to express any definite opinion yet on the results of this experiment but the above summary indicates that useful data may eventually be available for the student of rural economics.

Conclusions arrived at.

The following statements indicate the economic condition of each tenant (a) before the experiment was started, and (b) at the present time. There has been a marked improvement in his economic* condition during these two years. From this statement it is evident that the tenants are in no way badly off. Near a large market like Cawnpore conditions are bound to be more prosperous and in many ways different to those in the Mufassil which indicates the desirability of extending the experiment farther afield. It can only be possible to tackle experimentally the larger problem of Mufassil tenants in the same manner provided the co-operation of landlords can be secured.

N.B.—25 Mds. of fuel wood was supplied to each tenant from the afforested area on the farm, in one year. The amount of dung saved for the field combined with litter and urine made about 100 mds. of manure per pair of bullocks in one year.

(a) Statement of economic condition of the tenants just before the experiment was started.

Serial No.	Name.	Debt.	Live stock.	Price.	Dead stock.	Price.	Total stock value.
				Rs. a. p.			Rs. a. p.
1 ...	Sultan Ahir	100	One pair of bullock (poor in condition)	40	1 Desi plough 1 Khurpi 1 Gandas 1 Hansia	4 0 0 0 4 0 0 6 0 0 2 0	44-12
2 ...	Surjan Lodh	150	One pair of bullock (old and poor)	40	1 Desi plough 1 Khurpi 1 Gandas 1 Hansia	4 0 0 0 4 0 0 6 0 0 2 0	44-12
3 ...	Sunder Ahir	50	Nil.	...	1 Desi plough 1 Khurpi 1 Hansia	4 0 0 0 4 0 0 2 0	4-6

(b) Statement of present economic condition of tenants.

Serial No.	Name.	Debt.	Live stock.	Price.	Dead stock.	Price.	Total stock value.
				Rs. a. p.			Rs. a. p.
1 ...	Sultan Ahir	100	A pair of good bullock.	125	1 Desi plough 2 Hansias 2 Khurpis 1 Spade 1 Meston plough	6 0 0 0 4 0 0 8 0 3 0 0 10 0 0	144-12
2 ...	Surjan Lodh	122-5-9	do.	120	1 Desi plough 3 Hansias 3 Khurpis 1 Spade 1 Meston plough	6 0 0 0 6 0 0 12 0 3 0 0 10 0 0	140-2
3 ...	Sunder Ahir	90	do.	125	1 Desi plough 3 Hansias 3 Khurpis 1 Spade 1 Meston plough.	6 0 0 0 6 0 0 12 0 3 0 0 10 0 0	145-2

The conclusions so far arrived at point towards

(1) The desirability of continuing this experiment at Cawn-pore.

(2) The advisability of conducting more such experiments in different parts of the province, particularly in Mufassil areas.

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IMMEDIATE EFFECTS OF THE PERMANENT SETTLEMENT IN BENGAL

BY

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Calcutta.

After a period of various experiments with the revenue administration of Bengal, since the East India Company acquired the Dewany in 1765, it was finally decided to put the whole system on a durable basis and Lord Cornwallis was sent in 1786 to carry out the purpose. As the assessment on land fixed in 1790-1, became the permanent fixed revenue from that source, practically for the whole province of Bengal, it will be useful to examine the methods adopted and the agency employed for this purpose, the amount of the tax and the effects it had on the people and the Government.

The Court of Directors gave full instructions to Lord Cornwallis in their letter of 12th April, 1786. The Directors were of opinion that the information already possessed by the Government of India might be sufficient for them to fix up the amount of the assessment without recourse to minute local enquiries; and they suggested that they should be guided by former years' collections. They also remarked that "a moderate jumma or assessment, regularly and punctually collected, unites the consideration of our interest with the happiness of the natives, and security of the shareholders, more rationally than any imperfect collection of an exaggerated jumma, to be enforced with severity and vexation."

But when Lord Cornwallis arrived in India, he found that the Government was not in possession of the necessary facts. Bengal had necessarily suffered from the uncertainty and disorders attendant on the decline of the Mogul rule. The custom

had grown up of increasing the revenue by irregular and arbitrary cesses, rather than by any system of authorised reassessment. The state-control on the Zamindars had gradually diminished, until in later years they were responsible for the contract sum only and not for the details. As this took away all the responsibility from the government officials, fabrication and concealment of the accounts were made more feasible and the efficacy of those checks was destroyed, which enabled the Government in former days to acquire accurate information about the revenue collections. Thus the information and assistance which might have been derived from the office of the Kanongoes and the records of the Patwaris ceased to be dependable or accurate and only that kind of account was kept which suited the purpose of the Zamindars. As Baden Powell says, "The Kanongo became an official shadow and the Patwaris the bond-slaves of the Zamindars."¹ Moreover, during the various experiments and changes of system in the land-revenue administration since the Company's acquisition of the Dewany, the country had fallen into hopeless confusion. Mr. Shore, describing the state of affairs in 1789, says,² "It is allowed that the Zamindars are, generally speaking, grossly ignorant . . . of all that relates to their estates;—that the details of business with their tenants is irregular and confused, . . . that the rules by which rents are demanded from ryots, are numerous, arbitrary and indefinite;—that the officers of Government possessing local control are imperfectly acquainted with them, whilst their superiors further removed from the detail, have still less information . . ." To add to the difficulties, the Directors had forbidden any minute local scrutiny into the value of the lands by measurement and comparison of accounts. It was thought that any close inquiry into his income from land might impair the confidence of the Zamindar in the permanency of the settlement; and there were visionary advantages to be gained by abstaining from interference in his

¹ Land-systems of British India, p. 284.

² Minute of 8th December, 1789.

relations with his tenants. As a matter of fact, a survey and measurement of land could hardly have been thought at that time. It should be remembered, that in the conditions to which affairs in Bengal had come, the Company's servants could only have succeeded by doing the whole thing afresh. The cost would have been prohibitive; neither had the Government the agency adequate for the purpose. The operations were clearly impracticable for the few collectors and their supervising committees of revenue.

Indeed certain attempts had been made to find out the assessable income from land, before this. The professed object of the Committee of Circuit in 1772 was to ascertain the real value of the country by letting it in farm for a term of years to the highest bidders. It was believed that the farmers were well acquainted with the conditions of the country and would not agree to pay more than the land could bear. It is well known that the expectation was disappointed and they could not meet their obligations. The settlement of the Committee of Revenue in 1781, was made upon similar principles, though preference was given to the Zamindars. The assessment was not based on any accurate knowledge of the resources of the country, but on the Khalsa accounts supplemented by such information as could be obtained from the districts. In 1790-1, the Government followed the same process. The amount of the land-revenue, which subsequently became the limit of the Government income from land, was not determined with any reference to area-survey; that is, any consideration of the area, fertility, productive power of the estates, or the influence of the facilities of communication or proximity to market on the value of the produce. The assessment was based on conjectural estimates of different years' collections with reference to village accounts which were liable to fabrication, and not upon any real knowledge as to what the raiyats paid and whether the amount was burdensome or not. "A medium of the actual produce to Government in former years, drawn from the scanty information which the collectors had the means of procuring,

was the basis on which the assessment on each estate, whether large or small, was ultimately fixed'³

By this means the whole amount of land revenue for the provinces of Bengal, Behar and Orissa (comprising part of modern Midnapore), was fixed in 1790-1, at sicca rupees 2,86,00,989.³ Of this the amount of revenue for Behar was Rs. 53,09,181. Hence, the total amount of revenue for Bengal proper was Rs. 2,14,91,808. The principle observed in fixing up this sum was to settle the Government revenue at ten-elevenths of the rent paid by the tenants after deducting therefrom the costs of collection, and thus allowing the Zamindars the remaining eleventh of the net assets. On the face of it, this is as high a proportion as any Government could assess on land, without altogether ruining the source of the income. But in order to ascertain the real nature of the amount at which the land-revenue was permanently settled and how far the country was capable of bearing it, it is necessary to have a comparative view of the pitch of revenue for some period preceding it.

The following is a progressive account of the settlement of Bengal from 1582 to 1763 in rupees⁴:—

Todar Mull's Settlement in 1582	...	...	1,06,93,152
Sultan Sujah's Settlement in 1658,			
former Settlement	...	...	1,06,93,152
Increase on a hastabred in 76 years			9,87,162
Annexation of territory	...		14,35,593
<hr/>			
Total Assessment	...	...	1,31,15,907

³ Fifth Report to the House of Commons on the affairs of the East India Company, p. 19.

⁴ Appendix No. I to Mr. Shore's Minute of 18th June, 1789.

Jaffar Khan's Settlement in 1722, former Settlement

...	...	1,31,15,907
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Increase in 64 years	...	11,72,279
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Total Assessment	1,42,88,186
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Sujah Khan's Settlement in 1728	1,42,45,561
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Quasim Ali Khan's Settlement in 1763	1,38,32,370
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Add taxes progressively imposed from the year 1722 to 1763	1,17,91,853
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Total Assessment	2,56,24,223
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It will be seen that since 1722 the original or *usal* jumma was not increased, or much changed, but a dangerous system had grown up of increasing the tax by means of abwabs or viceregal imposts. The following is an abstract of these imposts from, 1722—1763, being the particulars of the sum of 1,17,91,853, stated in the preceding account.

			Rs.
By Jaffar Khan	...	...	2,58,857
By Sujah Khan	19,14,095
By Aliverdy Khan	22,25,554
By Quasim Ali Khan	74,81,340

Total	...	1,18,79,846
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Deduct:—Passed to account of Tipperah, by

Sujah Khan	87,993
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Net amount of abwab	1,17,91,853
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Taking out of consideration the revenue from newly acquired territories, the increase from 1582 (Todar Mull) to 1722 (Jaffar Khan), an interval of 140 years, amounts to Rs. 24,18,298,

including Rs. 2,58,857. amount of tax imposed by Jaffar Khan. Between the two periods, the country had considerably advanced in opulence, as new sources of trade had been opened and commerce in general had grown in volume and become more diffused. Hence, if Todar Mull's assessment in 1582 was moderate, the increase cannot be called exorbitant. Yet, moderate as the increase may appear, that part of it imposed by Jaffar Khan amounting to Rs. 14,31,136, could only be obtained by measures of greatest severity. The Zamindars, with few, if any, exceptions, were dispossessed of the management of the collection of revenue, and state officers employed to scrutinise the lands and their produce. All kinds of personal indignities, tortures and severities were inflicted upon those in arrears, in order to make them fulfil their revenue obligations.⁵ When we remember the uncommon skill, energy and perseverance, which Jaffar Khan brought to bear on the discovery of the resources of the country, and the callous unscrupulousness with which he pursued his methods, it would appear that the country was at that time assessed to the utmost it could bear.

From the time of Jaffar Khan to that of Quasim Ali in 1763, the history of land revenue administration in Bengal is the history of inordinate increases, which could be collected with merciless oppression if at all. From the abstract of the viceregal imposts given above, it would appear that from 1722 to the time of Ali-verdy Khan in 1755, or a period of thirty-three years, the increase was Rs. 43,98,506. Adding to this the imposts of Quasim Ali, we find an increase in forty-one years, of Rs. 1,18,79,846, or a little less than the total original assessment of the Khalsa and Jagher lands. Commenting on these assessments, Mr. Shore gave his opinion that⁶ "from the era of Todar Mull in 1582, until Jaffar in 1728, the increase was moderate; from that period to

⁵ Shore's Minute of 18th June, 1789, para. 15.

⁶ *ibid.*

the close of Aliverdy's administration in 1755, it was rapid, but not perhaps excessive; in 1763, it was violent and exorbitant."

But it is one thing to assess the country at a figure which it cannot bear, and another thing to realise it. The unpaid revenue at the end of the year 1761-2, was Rs. 79,74,065. Of the enormous assessment of Rs. 2,41,18,912, by Quasim Ali in 1762-63, only Rs. 64,56,198 were realised by the 16th of Magh or in $9\frac{1}{2}$ months.⁷

The absurdity of fixing up the assessment at an unattainably high figure, was perhaps realised, to a certain extent, for, since 1763, we find a progressive decline in the amount. The following is an abstract account showing the assessments and collections from 1763-4 to 1765-6, i.e., during the viceroyalty of Mir Jaffar and administration of Nundkumar, and the first year of the Dewani under Md. Reza Khan.⁸

<i>Year.</i>	<i>Assessment.</i>	<i>Collections.</i>	<i>Balance.</i>
1763-4	Rs. 1,77,04,764	Rs. 76,18,406	Rs. 1,00,86,358
1764-5	Rs. 1,76,97,678	Rs. 81,75,533	Rs. 95,22,145
1765-6	Rs. 1,60,29,001	Rs. 1,46,57,875	Rs. 13,71,126

The assessment for the year 1786-7 was Rs. 2,07,59,400.⁹ This is the latest year before the assessment question was being considered in Bengal for which figures are available. It will be found that the assessment under British rule in 1786-7 was more than the assessed land-revenue at any period previous to it except that of Quasim Ali, and inordinately more than that realised in any year. The very rapidity of the increase in the revenue from 1722, and the methods by which it was realised raises a strong presumption against its propriety; and in any case, a

⁷ Appendix No. 5, Shore's Minute.

⁸ Appendices Nos. 6, 7, *ibid.*

⁹ Appendix No. 10, *ibid.*

precedent derived from tyranny and extortion can have no weight with those who do not want to follow it and, if acted upon, can only be productive of disastrous results. Yet, there were responsible officers in 1789, who contended that the real value of land had been concealed and that the land revenue was capable of being increased by more than half a million pounds.¹⁰ Fortunately, these misconceptions were thoroughly refuted by Mr. Shore in his masterly Minutes. About the pitch of the assessment, he said, in 1789, "I have no hesitation in acknowledging my opinion of the propriety of a remission generally, since I entertain the strongest conviction, that Cossini Ali's demand was a mere pillage and rack-rent; no satisfactory proofs have yet been produced to refute the assertion, which is established on strong presumptive evidence. We might, at this time, by means similar to that practised by Cossini Ali, increase the receipts of revenue to a fourth or third perhaps beyond their stated amount, but public interests would afterwards suffer in a greater proportion, and no prudent man would advise, nor any one possessed of humanity make the attempt."¹¹ We have seen that the assessment ultimately made permanent was Rs. 2,14,91,808, excluding that of the Suba of Behar. This was more than two-and-a-half times the revenue realised in the last year of the rule of Mir Jaffar (1764-5) and fifty per cent more than the collections of Md. Reza Khan, in the first year of the Company's Dewany. It was supposed to be ten-elevenths of the net rental paid by the tenants. It was not appreciably different from the amount to which the land revenue had grown in 1786; this is intelligible when we remember that the main basis of the assessment was the estimates of former years' collections. But, as it is, it was exorbitant, and the result of the accumulated effects of many attempts at rack-renting in previous years.

¹⁰ Grant's Analysis.

¹¹ Para. 77, Minute of 18th June, 1789.

In order to understand the effect of this assessment on the Zamindars, on whom fell the burden of discharging the revenue responsibilities, three things should be considered.

Firstly, most of the Zamindars had been before this reduced to a state of comparative poverty. Bengal had suffered from the unavoidable consequences of the disorders and misrule attendant on the fall of the old empire and the wars, revolutions and rapid change of administrations. The yearly and triennial settlements of revenue during the early years of the Dewany, concluded with the highest bidders, sometimes with people who had no permanent interest in land, had greatly impoverished the land and brought the people to the verge of ruin and bankruptcy. Added to this, was the great famine of 1770, which according to Mr. Shore, swept away one-fifth of the population, on the most moderate computation; and this was followed by scarcity and famine in 1784 and 1787.¹² Moreover, during these years Bengal was made to supply the pressing and extensive needs of other provinces. In 1790, Lord Cornwallis remarked that the consequences of the heavy drain of wealth from Bengal was reflected in the "languor which has been thereby thrown upon the cultivation and the general commerce of the country," and he asserted that fully one-third of the Company's territories in Hindustan was jungle inhabited by wild beasts. About the Zamindars, particularly, he said, "I am sorry to be obliged to acknowledge it, but it is a truth too evident to deny, that the land proprietors, throughout the whole of the Company's provinces, are in a general state of poverty and depression. I cannot even except the principal Zamindars from this observation."¹³ Secondly, the rules and regulations which accompanied the Permanent Settlement for enabling the Zamindars to realise their rents were ill-understood, complicated, not found to be of easy practice, and the newly-established courts were quite unable to cope with the burden

¹² Minute of June, 1789.

¹³ Minute of 3rd February, 1790.

thrown upon them. The remarks in the Fifth Report to the House of Commons are very illuminating. It says in 1812, "In the Courts of Civil Judicature, the accumulation of cases undecided, had proceeded to such an extent, as almost to put a stop to the course of justice; or at least to leave to a Zamindar little prospect of the decision of a suit, instituted to recover payment of his rent, before his own land, by the more expeditious mode of procedure, established against him by Government, was liable to be brought to sale in liquidation of an outstanding balance." The report goes on to describe the state of affairs in Burdwan, where, it says, "the number of civil suits pending before the judges, was stated to exceed thirty thousand; and where, by computation, it was shown, that in the established course of proceedings the determination of a case could not, from the period of its institution, be expected to be obtained, in the ordinary course of the plaintiff's life."¹⁴

Thirdly, and most important of all,—the sale laws, which were enacted for the realisation of revenue. From the first, it was notified, that if any instalment of revenue was not paid, the estate would be sold. The sale laws, as they stood in 1794, empowered the revenue officers to bring the land to sale, at any time in the course of the year on failure of payment of any monthly instalment. It should be remembered that the landlords were not prepared for the sale of their lands by any experience they had either under the Mohammedan or British rule. During the Mohammedan rule, they were put to prison and their private goods and chattels seized for arrears of revenue. But, however much indignity and hardship they might suffer, their families were not dispossessed of the Zamindari and they did not lose their rank as Zamindars. Before the Permanent Settlement, it was not the practice of British administration to resort to sales of estates for the recovery of revenue. In a minute recorded on the proceedings

¹⁴ Fifth Report, p. 55.

of the Board of Revenue, in July, 1799, it is asserted¹⁵ " that from the Company's acquisition of the ceded lands (consisting of 24 Parganas, the districts of Burdwan, Midnapur and Chittagong), comprehending, until the formation of the Permanent Settlement, a period of thirty years, and from the accession of the Dewany, until the abovementioned time, there had hardly an instance been found, of the property in landed estates having changed hands, by cause of debt, either public or private; certainly, of the large ones, none." The authors of the Fifth Report of the Committee of the House of Commons, on the affairs of East India Company, observed that although the engagements entered into, for the five years' settlement contained a clause subjecting the land to sale, for the recovery of arrears, it does not appear that the measure was anywhere resorted to for that purpose, though heavy balances occurred which to a considerable extent proved irrecoverable.¹⁶

The Government share being fixed at ten-elevenths of the rental, the most active and able management was indispensable for the Zamindar to be able to discharge his liabilities with the punctuality required by the public regulations. The danger of his falling in arrears was greatly enhanced in cases where any inequality unfavourable to him occurred in the assessment during the settlement: and, from the way in which the assessments were concluded, it is probable that this must have had occurred in many instances.

The inevitable result was that landed estates in great numbers were sold for arrears of revenue. In 1796-7 the land advertised for sale comprehended a jumma or assessment of sicca rupees 28,70,061; the extent of land actually sold bore an assessment of Rs. 14,18,756. In 1797-8, the land advertised for sale was assessed at Rs. 26,66,191 and the quantity sold bore an assessment of Rs. 22,70,076. " Among the defaulters were some of the oldest and most respectable families in the country. Such were

¹⁵ Quoted in Fifth Report.

¹⁶ Fifth Report. p. 58.

the Rajas of Nuddea, Rajshahi, Bishenpore, Cossijura and others; the dismemberment of whose estates at the end of each succeeding year, threatened them with poverty and ruin."¹⁷ It has been estimated that in the course of twenty years following the Permanent Settlement, between one-third to half the landed property of Bengal changed hands as a result of the operations of the sale laws. In answer to a query from the Government in regard to the operation of the sale laws, the Collector of Midnapore, in his letter of 12th February, 1802, rightly observed that "it has been found by melancholy experience, that the system of sales and attachments has in the course of a very few years reduced most of the great Zamindars in Bengal to distress and beggary, and produced a greater change in the landed property of Bengal, than has perhaps ever happened, in the same space of time, in any age or country, by the mere effect of internal regulations."¹⁸ Thus took place, during the years following the Permanent Settlement, revolutionary changes in the rural economy of Bengal, as the inevitable consequences of "defects in the public regulations, combined with inequalities in the assessment, and with the difficulties, obstructions and delays with which the many nice distinctions and complex provisions of the new code of regulations were brought into operation"¹⁹ The result was distress, ruin and uncertainty which worked as a drag on agriculture and obstacle to prosperity for many years.

This state of affairs, naturally, had its reactions on the finances of the Government. The sale price often did not realise the arrears, and the revenue officers found it difficult to preserve undiminished the amount of the public assessment. "Besides the distress, which as before-mentioned had befallen a large portion of the principal Zamindars, and the continual advertisements which were made in the public newspapers of land on sale

¹⁷ Fifth Report, p. 56.

¹⁸ Quoted in the Fifth Report.

¹⁹ Fifth Report, p. 60.

for the recovery of arrears, the territorial revenue was so far from being realised with the facility and punctuality deemed necessary, that some of the members of the board of revenue, in consequence of the heavy balances which at the time occurred, went so far as to recommend and strongly to urge a recurrence to the former practice of confining the landholders for enforcing the payment of arrears.''²⁰

Moreover, Government found great difficulty in correctly apportioning the revenue demand on the subdivisions of the estates, which, for the recovery of the arrears it became necessary to bring to sale in parcels from time to time. The great proportion which the public demands bore to the net rental made a correct adjustment indispensable to prevent a diminution of the public receipts; for any part of an estate, if overrated, might prove unequal to bear the assessment, resulting in a loss to the purchasers terminating in another sale for the unavoidable balance. The process would go on until the Government would be obliged to take possession of the estate with its resources diminished to less than the public assessment or to reduce the same to ensure a sale by rendering its possession of any value to the intending purchaser. As the amount of the public revenue from land had been fixed in perpetuity, this would necessarily result in a permanent loss to the State. Of course Regulation I of 1793 provided that "the assessment upon each lot shall be fixed at an amount which shall bear the same proportion to its actual produce, as the fixed assessment upon the whole of the lands of such proprietor, including those sold, may bear to the whole of the actual produce." The adjustment of the assessment on the respective parts of the estate sold would have been an extremely easy process by this rule, if the amount of the actual produce of the parts or the whole were known. But this datum, as we have seen, was by no means available. The only source of information were people whose interest, in the circumstances,

was to represent the produce of the part distrained as large as possible; for the Zamindar would, of course, benefit in proportion as the amount is unequally distributed. In the gradual dismemberment of some of the great Zamindaris, this kind of deception is said to have been successfully practised by the confidential servants of the Rajas of Jessore, Burdwan and other defaulters of that rank.²¹ Under the circumstances, the Government became anxious for the security of its revenue which was the consideration that mattered most at that time. Not unnaturally, it lent a sympathetic ear to those who urged that the only way to enable the Zamindars to discharge their abnormal revenue responsibilities was to arm them with effective legislation for the realisation of their dues from the tenants. To understand how the Permanent Settlement and the subsequent regulations affected the raiyats, it is necessary to have a brief review of their condition at the time of the Settlement.

We have already seen how the country was gradually impoverished since the decline of the Mogul rule. The causes which impoverished the Zamindars, *ipso facto*, pressed with greater severity on the tenants upon whom the landlords naturally shifted their burden. There was little or no effective law to prevent rack-renting, and what is worse, a system of abwabs had grown up which had all the evils of imposts which are uncertain, irregular and unauthorised. It is probable that originally, the abwabs were a convenient way of adjusting rents, warranted by temporary circumstances, when neither party was willing to have a change in the ostensible rate. But, in time, it certainly lent itself to great abuses. When the Government adopted the method for the increase of its own revenue, the Zamindars naturally had to recoup themselves by imposing the amount on the tenants and something more to cover the costs of collections. This introduced a certain amount of uncertainty, and as the control of the Government authority relaxed, the landowners began to impose abwabs

²¹ Fifth Report, p. 61.

on their own account, till in the worst days of misrule, "discretion was the only limit to exaction." Mr. Shore calculated that the impositions of Jaffar Khan, Sujah and Aliverdy amounted to an increase of about 33 per cent on the assessment of 1658, while the increase of the Zamindars' exactions from the raiyats could not be less than 50 per cent.²² And in 1790, Lord Cornwallis was of opinion that the established rent paid to the Zamindars was fully equal to what the cultivators could pay.

From the discussions which preceded the enactment of the Permanent Settlement, it is abundantly clear that the Government was fully alive to the situation and the necessity of protecting the raiyats. But it was supposed that as a result of the Permanent Settlement, if left to themselves, the landlords and the tenants would come to an agreement conducive to their mutual advantage. Hence "the proclamation of the Permanent Settlement, which afterwards was enacted into a regulation, was couched in the language of distinct declaration as regards the rights of the Zamindars, but of trust and expectation as regards their duties towards the raiyats." There was nothing to prevent the Zamindars from exacting the most extortionate demands. The only provision made was as regards the Pattas.

It is curious how, from the very beginning, the Company's servants regarded the Pattas as the one sovereign remedy for the evils of the raiyats. In 1769, the Supervisors were instructed that the raiyat "should be taught that he is to regard the same (Patta) as a sacred and inviolable pledge to him." In 1776 Mr. Francis described the Patta as the evidence and security of the voluntary agreement to which the Zamindars and the raiyats would arrive if left to themselves.²³ The Regulations of 1772 which fixed five years as the period of land revenue, provided "That the farmer shall not receive larger rents from the raiyats than the stipulated amount of the Pattas on any pretence whatsoever." In 1793

²² Minute of 18th June, 1789.

²³ Minute of 5th November, 1776.

also, it was enacted that the abwabs should be consolidated with the land-rents and Pattas at those rates should be given to the tenants according to a form previously approved by the collector and registrar in the courts.

These Regulations failed completely. The Zamindars who wanted to raise the highest possible rents were naturally unwilling to grant the Pattas. The tenants had good reason to believe that the consolidated rate should only serve as a new starting-point for the imposition of fresh abwabs. Moreover, Regulation XLIV of 1793, restricted the Pattas to ten years only. Those who had pretensions of a permanent interest in land refused to enter into an engagement for a limited period, which might be construed as lowering their status.

On the failure of these Regulations, it was provided that, if the landlords would fix up at the principal rent-offices of their estates, notices specifying that Pattas according to approved forms and established rates would be granted to all raiyats who might apply for them, this should be considered as a legal tender of the Patta, and the persons so tendering should be entitled to recover the rents due to them from such raiyats either by the process of distraint or by suit in the Civil Court.²⁴ It was also provided, that in cases of disputes, the Civil Courts should determine the rents according to Pargana rates. But the Pargana rates nowhere existed, and "the Courts looked to the Regulations and the Regulations looked to the Courts." Summing up the results of this legislation Mr. Field says, "The Zamindars were enabled to claim any rates they pleased, to distrain for rent at those rates, and to put upon the raiyat the onus of proving that the rates so claimed were not the established rates."²⁵

As we have seen, there was a strong demand for giving the landlords still greater powers for the recovery of his dues from the tenants. This resulted in Regulation VII of 1799 which has

²⁴ Regulation IV of 1794.

²⁵ Landholding, p. 565.

become notorious in the history of agrarian legislation in Bengal. It empowered the landlords to delegate their powers of distraint to their agents; it empowered them to distrain without any notice to any court of justice or public officer, grain, cattle and all other personal property whether found in the house or premises of the defaulter or that of any other person; and unless the rent demanded was paid up at once, it could be brought to immediate sale. The only alternative to the tenant was to pay up the rent or contest it in court. The courts again were authorised and instructed to fine or imprison them for unfounded complaints and to give compensation to the agents of the landlords for being improperly summoned. It also expressly declared the rights of the Zamindars to summon and compel the attendance of their tenants. As to the rights of the raiyats, the Regulations asked them to recover them in the Courts if they were infringed.

The effects on the raiyats were disastrous. They were too poor to defray the expenses of litigation, and they could ill-afford to waste their time waiting on the leisure of overburdened judicial officials. They were ignorant of the forms and procedure of the new and untried courts, and the gradual decline and ultimate abolition of the office of Kanongoes and Patwaris deprived them of the only available evidence of usage on which their rights depended. The punishments provided in case he could not prove his complaint placed him at a tremendous disadvantage as against the Zamindar in maintaining his rights and resisting aggression. Lord Moria wrote in 1815, "Considering the constitution of our Civil Courts, it seems unanimously agreed that the raiyat or under-proprietor, unless he is a pattidar, is debarred from any adequate means of redress for the most manifest extortions."²⁶ There was nothing for him to do but to submit to the exactions of the landlords who were not slow to use their superior powers to advantage.

A revulsion of feeling gradually grew up against these provisions and Regulation V of 1812 was enacted. Based substantially

²⁶ Minute of 21st September, 1815.

on Mr. Colebrooke's recommendations, it remedied some of the evils from which the raiyats suffered. Among other things, it improved the law of distraint, and provided that cases should be referred to collectors for report as soon as instituted. It also enacted that no tenant should be liable to pay enhanced rent unless upon agreement or after notice. But the remedy was ineffectual and did not touch the basic evil of leaving the rights of the raiyats undefined and uncertain. Moreover the Zamindars and farmers regarded the provision as to the service of notice of enhancement, not as limiting but as recognising and extending their right of enhancement and proceeded to serve notice wholesale.²⁷ The results may well be imagined. But at the expense of so much individual suffering the main object was realised. The authors of the Fifth Report, commenting on Regulation VII of 1799, complacently remarked that if the operations may be judged from the improved state of the Revenue Department, its efficacy must be acknowledged. Remarking that the balance, at the end of each year, subsequent to this legislation, had been a diminishing amount, the Report says, "These are incontestible proofs of the regularity, with which the different parts of the revenue system are at length become adjusted; and of the ability of the country to produce the amount of revenue, which was assessed upon it, under the Permanent Settlement."

But it left the country bleeding. Even more important than the immediate effects, it could not but have far-reaching effects on the character and habits of the tenantry. One can only agree with the Court of Directors, when it said, "It would be unreasonable to expect the efforts of industry, or the cares of prudence from persons who cannot but feel that the laws are insufficient to protect them in the enjoyment of the fruits of the one, and still more, to secure them the more distant advantages of the other."²⁸

²⁷ Footnote, Field's Landholding, p. 654.

²⁸ Dispatch of 9th May, 1821.

ORGANISED BANKING AMONG THE MASSES

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THE CHIT SYSTEMS IN SOUTH INDIA AND THEIR RELATIONS TO THE SAVINGS OF THE LOWER CLASSES

I

“ There is hardly any real banking development in this country ” declared the other day a prominent witness¹ before the Madras Provincial Banking Enquiry Committee, having in view of course the smallness of the deposits in organised banking institutions, which at the present time are provided almost exclusively by the middle classes. The lower classes unfortunately are unable to take advantage of the existing facilities. Savings, in the sense of provision of surplus earnings for future consumption or production, there are in small amounts among the lower classes of the rural and urban population. The statistics of the Labour Office of the Government of Bombay reveal some interesting facts concerning the latter. The average working class family consists of 4.2 persons. The earnings range from Rs. 40 to 70 per mensem. The family men are able to remit about 2.3 per cent of their

¹ Prof. Doraisamy Ayyar.

monthly incomes. Single men remit a larger sum, about 26·2 per cent, though they spend more money on liquor, tobacco and betelnut, which amounts to 8 to 10 per cent of their total earnings. Another large item of waste is interest on debt, which is one anna in the rupee per month (75 per cent p.a.). The average expenditure on each marriage is Rs. 214, on each funeral Rs. 35 and on festivals and anniversaries together Rs. 18.² If savings could be effected on all these items we could easily gauge the volume of the surplus capital that could be drawn by the banks. From an extensive enquiry conducted by me among the lower classes of this Town (the results of which will be published later), it can be confidently asserted that in larger mofussil towns where conditions of employment are favourable, the situation is more hopeful. There is less of indebtedness and a larger margin of savings. Certain classes do not drink at all while the expenditure on jewellery and marriages is astonishingly low. The simple habits and frugal living are factors of great importance in the case of certain communities. As regards the lower classes of the rural population it will be seen that the agricultural labourer, the smallholder and the artisan are mostly free from debt owing to their inability to offer any security to the moneylenders. Though their earnings are small they are able to save a few rupees now and then, the greatest proof of the existence of savings, being the enormous amounts of chit funds conducted in almost every village in the southern districts.

The importance of mobilising these savings cannot be exaggerated. In most European countries the lower classes have considerable savings which form an appreciable portion of industrial and trade capital. It may be premature to expect similar results in our country, but at the same time it is indefensible to deny the possibility of attracting a good portion of these small savings to the liquid resources of the banks. The promotion

² From the summary of Dr. P. P. Pillai, "Economic conditions in India, p. 3.

of savings is urgently desirable at least in the interests of inculcating the habits of thrift and frugality. The prevalence of indebtedness is an indication of the absence of suitable banking facilities and the competition of loanable capital in the hands of a mass of greedy moneylenders, rather than of the inability of the masses to work and save. Here is a case of moneylending and its effects on the lower classes. In a small rural town, Sivakasi, in the Ramnad District, ten people have adopted a novel system of moneylending. They lend only very small amounts, the maximum being Rs. 20, and loan is granted for the mere asking of it, both to men and women on condition that interest alone will be paid at the rate of Re. 1, a month for every ten rupees per mensem. The creditor takes the greatest care to collect this sum punctually! The principle is demand—care to collect punctually! And the principal is demanded only when the monthly interest is found to be irrecoverable. On a very reliable estimate it has been found that the total sums lent this way exceed Rs. 5,000. No more comment is needed on this practice. Needless to say that the creation of the saving habit will change the situation completely and make the country-side free from debt. Next to the absence of suitable saving facilities is that of investment facilities. For idle money leads to wasteful expenditure or worse still slackening of work. It is said that in certain localities the employers encourage toddy shops and cinema shows so that the workers may spend the money they earn and keep on working. Such cases may be rare, but nevertheless they present an interesting problem. What happens ordinarily is that these small savings are lent freely to needy neighbours at no interest, or sometimes at very high rates of interest, with the result that unproductive expenditure is encouraged all round. When a decent sum is earned the illiterate man looks to the land or jewellery as sources of investment, with all their unfortunate consequences. The enormous rise in the value of land in certain localities is definitely traceable to this factor. The immediate

problem is therefore the provision of efficient saving and investment facilities, and thereby promote the habits of thrift and assist economic development.

Needless to point out that the Post Office or the Co-operative Society cannot provide these facilities because of the illiteracy of these classes and the impossibility of their keeping any account with them. The Cash Certificates are really attractive, but they are novel and it would take a long time for them to become popular among the masses. One hopeful remedy lies in the indigenous Chit System. About this Sir Frederick Nicholson wrote not long ago, "It is largely developing in Tinnevely and Malabar; and its development is a matter of great promise as an evidence of the power and willingness of villagers to combine in saving and lending. It requires to be cautiously stimulated and guided so that it may develop into a village banking system."³

II

The Chit is probably the most ancient method of organised banking, common to almost all countries.⁴ Simeox, in his "Primitive Civilisation" refers to the existence of such organisations in China, similar to the "money clubs" among the poor classes of workers, especially women in England. Mr. Logan, in his "Manual of the Malabar District" describes the practice of conducting chits in paddy as well as money, pointing out the peculiarity of shifting the scene of transactions from house to house. A similar custom exists in certain remote villages in the Tamil districts also. Regarding the origin of the word Chit,

³ Report on Land and Mortgage Banks in the Madras Presidency, Govt. Press, Madras, 1906.

⁴ The material for this section has been drawn from Mr. Mathew's book "The Law of Chitties."

Mr. Mathew thinks that it is a Hindustani word meaning a short letter or note or written message or memorandum.' There are strong reasons to believe that it is more probably a Tamil word. Chit is an ancient Tamil word, meaning a piece of palmyra leaf. Even to this day, in certain chit organisations, the method of drawing lots is as follows. When the subscriptions are collected, the names of all the members (say 20) are written down on 20 pieces of palmyra leaves and are put into a vessel. 20 other similar pieces are taken, but 19 of them are left blank, and one of them is marked Prize. These are put into a separate vessel and shuffled. A small boy or girl is then asked to take out one from each of the two vessels and the member whose 'name-chit' is drawn along with the chit marked 'Prize' is declared the winner. In the next drawing the same process is repeated, but with nineteen chits only and so on. It is possible that the word Chit arose from this practice of using the palmyra leaf for casting lots.

Before we proceed to describe the various forms of chits it is necessary to distinguish them from similar transactions, which in reality are lotteries. Even eminent judges have differed in their views on this point. The essential characteristic of a lottery or wagering transaction is "that one party is to win and the other to lose upon a future event, which at the time of the contract is uncertain."⁵ This definition brings out clearly the two distinguishing elements of a lottery, namely *chance* which decides who should win and who should lose, and the *disproportionate gains* of some at the expence of the others. But in certain chit transactions both these elements are present, but not "uncertainty" or "risk-taking" about the sum in question. A recent case in the Madras High Court and the ruling thereon well illustrates this point. "The plaintiff and the defendant promoted what is described as a chit fund. A capital of Rs. 500 a month

⁵ "The Law of Chitties," Mathew, p. 29.

is raised by 500 subscribers, subscribing each Re. 1 per mensem. At the end of the month, there is a drawing by lot and the subscriber, who draws the ticket is paid Rs. 50 and his connection with the transaction forthwith ceases. This process is repeated month after month till the end of the 49th month. At the end of the 50th month, each of the remaining subscribers is paid Rs. 50 and the stakeholders divide the profit and the fund is dissolved.”⁶ The judgment of Justice Ramesam is noteworthy. “The fact that emerges from this description is that while chance determines the disposal of the interest earned, there is *absolute certainty* with reference to the distribution of the capital fund itself. Though it may be said it is a small amount of chance that tempts some to join the fund, the dominant feature of the transaction is that it enables a large number to receive their savings in a lump sum, and the scheme is in their case an incentive to thrift.”⁷ As a broad statement we may say that a chit is a legitimate transaction in which there is an absence of risk-taking and uncertainty regarding gains or losses, the motif being the promotion of savings and investments.

Every chit transaction involves the association of a number of individuals; but the peculiarity is that it is neither a company nor a partnership. For the contract is between the foreman and the members severally. And there are no joint or mutual rights and liabilities. This point is of great significance in law.

III

The simplest, the commonest and the most ancient form of the chit is known as the Poo-Chit, also called the Luck-Chit. (M. Naruk Chit.) Usually 10 to 20 people join together and subscribe each a rupee or its multiple every month; at the last

⁶ Ibid., p. 21.

⁷ Ibid., p. 23.

day of the month lots are cast to decide to whom the pool should be assigned in the manner described above. The same process is repeated month after month till every member is paid. The promoter of the chit called Karaswan (Munnal and Thalalay in Travancore and Kurimoopan in Cochin) is given the first or the second month's pool and thus is a gainer in interest. Besides, he collects penal interest from the defaulting members and in the West Coast he charges also a small fee or commission on the total capital amount of the Chit. The arrangement is primitive, but since the amount of transaction in each chit is small and the members are all poor and illiterate folk it is not regarded as unsatisfactory. Sometimes the Karaswan borrows the whole amount from the successful drawee for his own use promising to pay interest, which he seldom fulfills. The great merit of the scheme is however its simplicity and the fact that it can be conducted even by the ignorant people, without the aid of any account book. It is of some interest to notice that these chits are in great favour among the women. In the Town already referred to (Sivakasi) there are over 100 organisations 20 of them being conducted among and by women. The total transactions exceed Rs. 3,000 a year. The organisations of the women are among the most efficient.

On the same principle, but differing only in the commodity of transaction, there is the Grain Chit. Each member subscribes every month or at the time of harvesting of each crop a certain quantity of grain, paddy, ragi or cholam and the pool is distributed in the same way as money is till the whole round is completed. This form of the chit is common among the small farmers, the tenants and the agricultural labourers, especially of the Adidravida community. Most probably this chit in kind preceded the chit in money. In spite of the many defects and difficulties in the working of these organisations, it cannot be denied that this is superior to the method of lending and borrowing in kind, common among many villagers, which involves repayment at 25 per cent more at

the next harvest. It may be added that the great fluctuations in the price of grains in recent years have caused the decay of many of these transactions.

The second great variety of the chit, and plainly one of recent development is the Auction Chit. (M. Lela Kuri.) Members subscribe in the usual way, rupees five or its multiple thereof, and the chit runs to a period of 20 to 50 months according to the total value of the chit amount. In Travancore the value of the chit is called a ticket, and no subscriber usually takes one full ticket. "One single ticket is now divided into different classes of varying values, and there are very many subscribers coming under each class."⁸ On the day when the subscriptions are closed members are allowed to bid, and the one whose bid is the lowest for the chit (the one who offers the largest amount of interest in the shape of discount) is given the pool. This deduction which will be very high at the first month and diminish progressively is available for distribution among all the members equally when the chit is dissolved. In the West Coast "in some chitties Veethapalisa (dividend) is given only to the non-prized subscribers. In others it is given to the prized subscribers also, while in a third class of chitties it is given to the non-prized subscribers and the subscriber or subscribers who prize the chitty at the particular instalment in question. Even the defaulting members are sometimes allowed Veethapalisa in certain specified proportions."⁹ The prized members are required to offer sufficient security in the shape of pronotes or hypothecation bonds. One defect in the auction chit, not brought out under normal circumstances is the absence of reinvestment facilities if desired. Article 18 of the Travancore National Bank which conducts a number of these auction chitties in addition to its ordinary banking runs as follows: "If at the time of any auction there are not persons

⁸ "The Law of Chitties," Mathew, p. 151.

⁹ Ibid., p. 152.

to bid higher than the minimum discounts such tickets shall be prized by casting lots and the prize-winners shall have the same privileges and liabilities as if they had prized their tickets in auction." This provision is not of much significance in the case of a Bank conducting chitties, for the prized member can immediately transfer the funds into the savings bank or fixed deposit account. But when the chit is conducted by an individual the problem is serious. In the Ramnad District, the Karaswan lends the sum to non-members at a higher rate of interest, if there is a demand or allow it to lie idle.

The third form of the chit organisation is the "Vessels Chit." As many members as the Karaswan could enroll are admitted as members and the chit usually runs for a period of 16 months. Each member pays one anna or its multiple in the first month, two in the second month, three in the third and so on till on the sixteenth month the contribution is one rupee or its multiple. Lots are drawn every month and the winner gets a bronze vessel valued approximately at a cost equivalent to the subscriber's 12 months' total contributions. The great attraction for the many who join it is the very low initial contribution. And further the winner's liability to contribute his subsequent instalments ceases as soon as he wins the prize. At the end of the 16th month all the remaining members receive bronze vessels of the same description. The Karaswan's profits are represented normally by the difference between the total collections and the total sum expended on the vessels, but unscrupulous promoters do not return the paid-up subscriptions of the defaulting members, if they had not continued till the 16th month. It will be recalled that this system resembles very closely the one which has been described on p. 851. The only good feature about this system is its resemblance to the plan of instalment credit, but made more attractive by placing the initial contributions very low. A good deal is to be said for popularising and adapting this system in regard to many purchases of the lower classes.

IV

Some general remarks may now be offered regarding the chit system as a whole with a view to explore the possibilities of developing it as an instrument of deposit banking among the lower classes. In the first place there is no gainsaying that the system is admirably adapted to the needs and conditions of the poor classes. It enables even the smallest investor to accumulate his savings in an intelligible way. A rupee a month is the subscription common to most organisations. Another great advantage which appeals to the illiterate investor in an extraordinary way is its proximity, and security. The greatest one from the point of view of savings is the compulsory character of these deposits, which acts as a great stimulus to thrift. In the villages the subscriptions are contributed with religious punctuality. Above all the chit is one of the greatest co-operative organisations ever devised by the common people; for the success of the working of a Chit Association depends on the regularity of the contributions of each member. In the words of Sir Frederick Nicholson: "It demonstrates the power and willingness of the villagers to combine in saving and lending." Where there is homogeneity among the members and the earnings of all come from the same source, such as a school or a factory, the potentiality of the chit as a cheap and efficient method of deposit banking is indeed beyond all praise. In many respects it is superior to a co-operative society, where the incentive to thrift and deposits is not emphasised; for the normal tendency as far as the present conditions warrant is to loan out money out of funds drawn from a Central Bank.

The chit in spite of its great advantages for small groups of people possesses many drawbacks, which demand rectification. One great defect that has been already pointed out is the absence of investment facilities for the winner, when he has no immediate need for the money. Another equally significant defect is

that only small savings are encouraged. For as it is minors and very young people joining the chit for the sake of accumulating large savings for a definite purpose such as marriage or house-building have to withdraw their small savings at the time of the dissolution of the chit and become moneylenders themselves or invest them in land or jewellery. This defect is of the utmost significance from the point of view of sound banking development. For large additions to the fluid resources of the country are thereby checked and unproductive investments are encouraged. And finally the most important defect is that the chit organisations though numerous are all on a small scale, scattered and without the least possibility of establishing any sort of co-operation with each other. This aspect of the problem needs the most careful attention since the essence of a sound banking system should aim at pooling all the resources at a central point.

The development of the chit along these lines has however great risks to face; for any attempt to enlarge the associations and extend their operations and thereby pool the resources would result in the weakening of the organisations whose main strength now lies in their compactness, close personal knowledge of each member and the mutuality of interests. The problem may be stated to be the evolution of a machinery that would at once control and improve the existing organisations, without destroying any of the good features of the present system. In this connection we may draw valuable lessons from two significant developments that have taken place in the chit organisations in recent times.

The first one illustrates the point of view expressed by Sir Frederick Nicholson, namely the development of the chit as a Village Banking System. At Rajapalayam, a rural town of some importance, where there are over 24 organisations and the transactions exceed Rs. one lack, the chit goes by the name of Prize-Chit. But in reality this is not a chit transaction, for there is neither casting of lots nor auctioning. The Karaswan enrolls as many members as he can and the number in certain cases reaches

the colossal figure of 1,000. The duration of the chit is usually for 50 months if the monthly subscription is Rs. two and the total value of each share Rs. 100. Elaborate accounts are kept regarding collections and dues and receipts are issued every time money is collected. Defaulters pay penal interest at the rate of 12 per cent. Since there is neither casting of lots nor auctioning the Karaswan is vested with the right of distributing the loans to members according to his discretion. Members are eligible for loans, but none can demand them as a matter of right; and sometimes loans are given to non-members on the security of jewels. Now it will be seen that this is a pure banking business with the added advantage of steady deposits of a compulsory character. The poor people, labourers and agriculturists join the organisation either for the purpose of depositing their savings or for borrowing to pay off old debts. One penalty for the member who discontinues is that his account is closed forthwith and his paid-up subscriptions are paid out minus an arbitrary deduction of Rs. 10 and also a sum equivalent to the total penal interest that would actually accrue till the 50th month. The non-borrowing member unfortunately is not paid even any interest on all his subscriptions. Evidently the Karaswans are unscrupulous but their measures regarding the members who discontinue are in a way justifiable because they cannot have borrowing facilities to loan out money to the deserving subscribers. This form of the chit organisation, rather the adaptation of the chit methods to ordinary banking business, reveals the necessity for linking up the Karaswans with an efficient bank.

A similar practice showing the transition from chit transaction to banking business obtains at Sivakasi, but rather in an undeveloped form. Subscriptions are collected in the usual way, but instead of the members being allowed to bid the Karaswan is given the right to distribute the pool in a certain order, according to his discretion. The second chit goes to the Karaswan as usual. The peculiarity is that since there is no auction the non-prized

members pay their monthly subscriptions less a fixed deduction for discount. For example, if the value of each share is Rs. 25 the prized member pays the full amount whereas the others pay only Rs. 22. The last prize-winner, who has been paying Rs. 22 throughout would receive the full value of the chit, say Rs. 500 if he had contributed for 20 instalments. The system is less democratic, because it vests the sole responsibility for the distribution of the loans in the Karaswan. But in many respects it is superior to the auction method, which leads to competition and scramble for loans. Further, there is no need for the distribution of the dividend (Veethapalisa) at the end. The Karaswan's scope for utilising those moneys is also removed. But his legitimate commission in the shape of gain in interest is not deprived of. For in the second chit all have to pay Rs. 25 without any deduction. It is quite possible that the present system might develop as a pure banking concern. It is of some interest to notice that ever since the adoption of this method the old auction method has been discontinued. There are 20 organisations in all and the transactions amount to about Rs. 30,000 a year.

The second development, taking place largely in the Travancore State, is in the opposite direction, that is, an ordinary banking concern absorbing the chit transactions. The impetus to this interesting development came from legislation¹⁰ regulating the foreman's security, the registration of the articles of agreement (Variola—literally, document written on a palmyra leaf), the keeping of a complete record of the proceedings and account books, and the investment of unpaid chit funds in an approved bank. These regulations, some of them stringent, were necessary, in the first place to protect the subscribers against the frauds of the foreman and, secondly, to put on a statutory basis the existing practice so as to make the administration of the law easy and efficient. Two

¹⁰ Regulation III of 1918. An admirable edition with critical notes is found in Mr. Mathew's book "The Law of Chitties," already referred to.

sections especially, Sec. 15, which requires the foreman to offer twice the chitty amount as security, unless otherwise provided for in the Variola and assented to in writing by the members, and Sec. 19, making the foreman liable to the subscribers for the amounts due to them to the fullest extent, have perhaps tended towards the absorption and concentration of these transactions in banks. Though many foremen still conduct chitties without offering the required security, on account of their business reputation, by taking the written consent of the subscribers, an article (No. 23) of the chitty agreement of the Travancore National Bank, Ltd., shows conclusively, the advantages of chitties as bank adjuncts. "As all the movable and immovable properties of the Bank will be liable for this chitty, no separate security need or will be given." Other considerations such as the facility of investment of unpaid sums in approved banks and of the prompt discharge of the claims of the prized subscribers, without the need of borrowing outside, make it extremely advantageous for a bank to transact chits in addition to its other ordinary business. Another remarkable advantage is that a bank is able to appeal to a larger number of subscribers outside by the confidence it inspires by its financial position and the provision of remittance facilities through the agency of other banks. These advantages are demonstrated from the profits of the abovementioned bank, as disclosed from its published balance sheet for the year ending 16th August, 1929.

Banking Department.						
Expenditure.				Income.		
		Rs.	a.	p.		
Interest	...	97,647	2	4	Interest	...
Office charges		31,200	14	6	Discount, etc.	1,83,909 8 7
Depreciation	...	538	15	3		
Income Tax	...	8,207	11	10		
Total		1,41,339	1	9	Total	1,83,909 8 7

Chitty Department

Expenditure.				Income.*			
	Rs.	a.	p.		Rs.	a.	p.
Account Books, etc.,	5,991	15	5	Interest	...	8,193	13 4
Commission	...	919	13 0	Commission	...	5,351	12 11
Total	6,911	12	5	Total	13,545	10	3

* Out of a Net Profit of Rs. 49,204-4-8 for the whole business net income from chitties alone amounts to Rs. 6,633-13-10, or roughly about 1/7th of the total. This is probably the reason why all commercial banks in Travancore have chitty transactions alongside of their ordinary business. Recently many Town Banks in the Tamil districts have also copied the system. The great merit of this combination is that a steady stream of deposits is assured for the banks and though the advances to the prized members are made on what the bankers would call dead assets, such as land and houses they are made as liquid as any other security by the provision that in cases of default the whole sum is recoverable by a summary sale of the security. In spite of these advantages it has to be admitted that the conduct of chitties by banks does not give all the necessary facilities for the small investors. For a bank cannot deal with them in the same way as a private foreman can. Its value of the chit is also necessarily high.

V

The main problem of reorganisation may now be stated briefly as follows:—Some measure of control by government regulation is clearly necessary to make the working of these organisations efficient, popular and without retarding progress, while every effort should be made to extend their operations and bring them into a close contact with the organised money market of the country, the central idea being of course the encouragement of

savings and the promotion of the habits of thrift. Banking facilities are indeed one of the means of improving the conditions of the masses. The following suggestions are offered with a view to the regulation of the chit organisations in the Madras Presidency or for their adoption elsewhere.

(1) The first step would of course be a close study of the existing practices in the Presidency, and the various rulings of the Courts on cases arising out of them. In Travancore only two methods of chit transactions are reported, while in one single Tamil district two more have been found to be working. A close study of all the existing methods might give us good results for drawing up model bye-laws or articles of agreement. Insistence on such model bye-laws is one of the necessary conditions for efficiency. In the Travancore Regulation, there is no such provision, and its absence gives scope for considerable fraud by the foreman. For whatever is agreed to between the Karaswan and the subscribers is registered. A case where 50 per cent interest was provided and had to be upheld in the Court is cited by Mr. Mathew in his book (p. 197). Apart from this, other minor changes may be needed to make the regulation suited to our conditions, such as the levy of a smaller fee for registration, the raising of the limit of chit amounts that need not be registered from Rs. 100 to Rs. 200. The village officers may be required to keep a register of all chit transactions below Rs. 200. The power of the Panchayat Courts to decide all cases arising out of chit fund transactions may be statutorily recognised.

(2) Regulation is not all that is needed. An immense development of these institutions is possible and all ways and means of stimulating cautiously their growth should be explored. There is a great need for the insistence of the chit principle in the co-operative societies at the present time. In fact the desirability of advancing small loans only on this principle seems to be urgent to eradicate the heavy overdues. In this way the members will learn the advantages of saving and borrowing instead

of borrowing and repaying as it is now. Another great means of developing the chit system is to attach the chit organisation to the factories or the workshop and similar places, where homogeneity and regularity would ensure their successful working. The owners of factories may be persuaded to conduct these organisations either on their own responsibility or through their agents. At any rate there is a great scope for the extension of the system along these lines.

(3) Regarding the problem of pooling the resources at a central point and providing the necessary facilities for reinvestment, the following scheme may be adopted. The winners should be acquainted with the fact that their savings could be profitably allowed to accumulate in a Co-operative Bank. Every foreman may be required to include in his organisation a few non-bidding members, who would like to have continuous savings. Their subscriptions should be required to be invested as Prudential Deposits at 6½ per cent interest in a Co-operative Bank. In this way the Karaswans will become the collecting agents of Central Banks in many places which are now practically out of their reach. When savings are thus accumulated it may be even possible to introduce the Insurance Companies to these small investors.

(4) It may be quite possible to devise new types of chits such as the Vessels-Chit, and popularise them among the masses. There is a great scope for the evolution of many chits for such purposes as marriage expenditure and house-building along these lines.

(5) In view of the great importance of the attraction of more and more deposits and the encouragement of thrift, the question of the formation of an Investment Trust on the lines of The First Mortgage Co-operative Investment Trust, Ltd., should be carefully considered. For there is nothing like the attraction of a higher rate of interest for the small investor. If the British Trust could earn 7 per cent free of income-tax for its members,

it is possible to declare a higher percentage in India. This must certainly be the crown of the chit organisations.

No emphasis is too strong for the fostering and development of these organisations, along the lines indicated above. It is not because we do not believe in the adequacy or the efficiency of the modern methods such as the Cash Certificate or the Postal Savings Banks and Government Securities, that we advocate the development of these institutions. The great secret in the development of banking methods is to utilise the existing machinery, reorganise and build upon it rather than supersede it by methods unknown or unintelligible to the masses. The chit system has proved its popularity and efficiency and would certainly become one of the most potential instruments of mass uplift by promoting thrift and savings.

NOTES

INDIAN BUDGET, 1930-31

The Indian budget is characterised by proposals for additional taxation amounting in the aggregate to more than Rs. five crores. The abolition of Provincial contributions left a large gap in the resources of the Government of India which has not been filled by the ordinary growth of revenue. There is also a fall in the contribution from the railways to the general revenues; on account of these and other causes, the Government of India have found it necessary to impose additional taxes. A brief examination of the proposals will show that though the Government have succeeded in budgeting for a surplus by means of additional taxation, the burden is likely to fall more on the poor than on the richer classes of people. Before considering in detail, let us have a general idea of the financial position as presented in the budget, which is given in the following table:—

			Lakhs
Budget estimates on the existing basis of revenue			
involve a deficit of	...	...	552
Reduction of expenditure		...	142
Civil estimate	62		
Military estimate	80		
	142		
Deficit reduced to	...	...	410
Reduction in the import duty on rice from as. 3 to			
as. 2 ps. 3 involving a loss of revenue of		...	30
Deficit increased to	...	...	440

			Lakhs
Proposed additional taxation amounting to	...	510	
			Lakhs
Cotton duties	...	125	
Kerosene duties	...	35	
Sugar duties	...	180	
Income & Super taxes	...	70	
Silver duty	...	100	
			510
Deficit turned into surplus of	...	70	

The reduction in expenditure of Rs. 142 lakhs is an offset to the total new expenditure of Rs. 146 lakhs on certain new services, which has been provided for. The new services include Broadcasting, the Imperial Department of Agriculture, the appointment of Trade Commissioners and certain local improvements in areas directly administered by the Government of India. The reduction in expenditure may be sub-divided into two parts:— the civil estimate has been reduced by Rs. 62 lakhs and the military by Rs. 80 lakhs. Though the reduction in military expenditure may be considered a step in the right direction, it is very little when we take in view the total amount involved. The expenditure now provided for military services is Rs. 54.20 crores which would have been 55 crores but for the reduction. In these days of international conferences in favour of disarmament, a more substantial reduction in the military budget of India was certainly called for.

On the existing basis of revenue, the expenditure with the addition of 146 lakhs referred to, involves a deficit of 552 lakhs. The reduction in expenditure, which has been provided for as mentioned above, reduces the deficit to 410 lakhs. The deficit however increases by 30 lakhs because of the reduction in the import duties on rice from as. 3 to as. 2 ps. 3 per maund. There has been a fall in the price of rice to the obvious disadvantage

of the cultivator in Burma. Siam, which is one of the principal competitors of Burma in foreign markets, has a lower export duty, and it is reasonable therefore to put the Burmese trade on a footing of equality. The reduction will mean a loss of 30 lakhs in revenue which will therefore increase the deficit to 440 lakhs. In order to meet this deficit, additional taxation has been provided for which is estimated to yield additional revenue of 510 lakhs. If this expectation is realised the deficit will be turned into a surplus of 70 lakhs at the end of the new financial year.

At a time when the economic life of the country is undergoing a severe strain, due to a prolonged depression in some of its principal industries, the Government of India would have been better advised to reduce their expenditure in such a way that the necessity for additional taxation might be reduced to a minimum. Instead of that they have gone in for increases in taxation under five heads and have provided for a surplus. If at the end of a financial year the Government realise a surplus because of prudent administration, it may be an indication of sound finance; but it is certainly not sound finance to provide for a large surplus with the help of additional taxation at a critical time in the history of the country.

COTTON DUTIES

The most important proposal which aroused keen controversy is with reference to the imposition of additional duties on cotton piece-goods. The existing duty of 11 per cent is to be raised to 15 per cent. This is to be considered a revenue duty. An additional duty of 5 per cent, to be considered a protective duty on all non-British cotton goods was originally proposed by the Finance Member. This additional 5 per cent duty was not to be less than as. 3½ per lb. on plain grey goods. It was proposed that this protective duty should be imposed for three years only before which period the question of protection to the cotton industry should be re-examined. This proposal raised a large question of

policy relating to (1) India's fiscal autonomy and (2) Imperial Preference. •

The convention regarding the fiscal autonomy of India is that the British Government will not interfere in the fiscal policy of this country when the Government of India and the Indian Legislature are in agreement. Under the present constitution, the Government of India is not responsible to the Legislature; it is largely British in personnel and represents the British Government in India. The agreement of the Government and the Legislature on fiscal matters cannot therefore reflect a purely Indian point of view in all cases, particularly when British interests are involved. It must be a compromise of some sort. In other words, the convention regarding the fiscal autonomy of India presupposes an autonomy which will not in practice affect British interests adversely. It is not an autonomy of the character that the Dominions enjoy.

This constitutional position has been reflected in the existing Steel duties which are higher on Continental goods as compared with British goods. In the same way, the proposal regarding the Cotton duties is to have a higher duty on non-British goods and a lower duty on British goods. The policy involved in either case is not that of Imperial Preference as has been frequently said in recent discussions; it is purely a policy of British Preference.

The cotton industry in India is passing through a very critical condition, a part of which is due to competition from Japan and a part to other causes. The Indian Legislature was faced with a dilemma by the proposal of the Government. The rejection of the 5 per cent protective duty would not give an adequate measure of assistance to the cotton industry against Japan. The acceptance of it might on the other hand facilitate the entry of British goods in India as against Continental and Japanese goods. It was said that the kinds of goods which come from the United Kingdom were not produced in India, and that therefore there

was no effective competition between the two. Plain grey goods were however found to enter into competition with Indian goods, and the original proposal was therefore modified to include British plain grey goods under the category of goods required to pay a minimum duty of $3\frac{1}{2}$ as. per lb. In view of the increasing importance both from the revenue point of view and the protective point of view of customs duties in this country, and the advocacy of schemes of Empire Economic Unity, the question of British or Imperial Preference from the Indian point of view should be boldly faced and considered in all its aspects by a representative committee at an early date.

KEROSENE DUTY

The excise duty on kerosene is increased from one anna to one anna six pies per gallon, and the import duty has been reduced from 2 as. 6 ps. to 2 as. 3 ps.; the object is to obtain additional revenue, which at the same time may keep down the price to the consumer. It is, however, difficult to say whether the price will not be increased. The report of the Tariff Board on the Oil Industry has abundantly proved that the Kerosene Pool in India has managed to take all these years a higher price from the consumer.

DUTY ON SUGAR

At present sugar has been classified into several classes according to quality, and the duties vary according to the standard. Sugar of 23 Dutch standard and above pays Rs. 4-8 per cwt., sugar below 23 Dutch standard but not inferior to 8 Dutch standard pays Rs. 8 per cwt., sugar below 8 Dutch standard and sugarcandy pay at present 25 per cent *ad valorem*. An addition of Rs. 1-8 per cwt. has been made to all these classes. Molasses, which at present pays a duty of 25 per cent will be treated separately from sugar and will not bear the increase.

The question of protection to the sugar industry in India is still awaiting consideration. It is one of the important industries which can be developed to the great advantage of the people of this country. The new Imperial Agricultural Council is considering methods for the improvement of sugar production. Though the proposed increase on sugar may be of advantage to the industry within the country, it is high time that the position of the industry with reference to protection be considered and the duty adjusted accordingly.

TAXES ON INCOME

Personal incomes of Rs. 15,000 and upward will have to pay an additional pie in the rupee; in higher grades of income, corresponding adjustments will be made. This will also apply to super-tax.

SILVER DUTY

The last proposal refers to the re-introduction of the import duty of as. 4 per ounce on silver. The position of silver in this country has been greatly complicated of late. The Government have huge stocks of silver which they are eager to dispose of. The sales of silver by the Government during recent times have been an important factor in depressing the price of silver. The imposition of the duty will bring about a disparity between the price of silver in India and outside. The imports of silver into India may suffer and in consequence the world price of silver may fall further. The artificial rise in the price of silver within the country may benefit the holders of silver for some time, but this does not mean that the position of silver as a store of value has been improved. This must have relation with the international position of silver. Besides, the silver market in India will have to watch with anxiety the action of the Government with reference to their stocks.

CONCLUSION

The estimated revenue from each of these measures has been given in the table above. We find that with the exception of the increase in income and super taxes, the increase under other heads must fall on the poorer classes and the lower middle classes. The percentage of additional contribution to the State, which the comparatively poorer section of the people will have to pay because of higher prices on cotton goods, kerosene, sugar and silver, will be an additional burden to them, higher than in the case of the more comfortably placed classes. The slight increase in income and super taxes which the richer classes are called upon to pay must be considered insignificant compared with the burden put on the poorer classes. Out of the total estimated revenue from additional taxation of 510 lakhs, 70 lakhs come from the increase in income and super taxes; the remaining 440 lakhs are to be derived from the other duties. It is obvious therefore that the taxation proposals are not equitably arranged as between the richer and the poorer classes of people.

C. N. V.

INDUSTRY, TRADE, TRANSPORT, ETC.

The economic outlook for India continues gloomy. The depression that came over her some years back shows no signs of abating. If anything it is worse than ever and embraces our industry, agriculture and trade although the different sections of these are differently affected. Vastly divergent opinions are held as to its causes by the authorities and Indian industrialists. The Government spokesmen attribute it all to world causes and assign no place whatsoever to their own exchange policy as a cause. Thus observed Sir George Schuster at the last annual meeting of the Federation of Indian Chambers of Commerce and Industry: "The main causes for the present depression were world-wide causes such as the collapse of the American boom, which had resulted in a general lack of confidence and a slowing down of trade and industry, a decreased demand for raw materials, and a sharp drop in the prices of all commodities. The effects of these would have been the same whether exchange had been at 1s. 4d. or 1s. 6d." The industrialists, on the contrary, while not ignoring the world causes, hold the 18d. ratio as mainly responsible for the depression. Some of them go the length of regarding it as the one and only cause, but their number is limited. The industrialists point to the increasing imports and decreasing exports, the epidemic of strikes and other labour troubles, the low-purchasing power of the agriculturists and more than anything, the sad predicament of the Indian cotton industry as proofs positive of the havoc that the higher ratio has wrought in the industry and commerce of the country.

It may at once be admitted that the 18d. ratio has affected some industries more than others, and some like jute and tea perhaps not at all. But it is not easy to understand how it can be asserted that it has nothing to do with the depression, nor again, that it is the only cause of that depression. However, the Finance

Member has declared that the exchange question cannot be reopened and that the Government would use all the resources at its disposal for the maintenance of the ratio fixed by statute in 1927 and that those resources are ample. That ought to settle the controversy—for a time. For a time, because so long as the managed currency system of the country does not make room for an automatic currency the question cannot be set at rest for ever. The sooner, therefore, Government take steps to establish a gold standard backed by a gold currency the better it will be for them and the country.

Of the industries that have been affected by the depression, the cotton mill industry is the one that has been most hard hit. It is said that during the last five years or so the Bombay mills have incurred losses to the tune of Rs. 11½ crores, that the loss to the public through some of the mills having been written down their capital or gone into liquidation amounts to Rs. six crores, that the number of mills in operation has dwindled from 81 to 73, and that there are four mills also that are in liquidation involving a combined capital of a crore of rupees. (They have now gone under.) In the mill centres of the interior of the country, the situation is not so bad, but their profits have come down to 4 or 3 per cent.

Besides the 18d. ratio there were special causes operating in the case of the cotton mill industry in general, but in the Bombay mills in particular that have led to this deplorable state of affairs. The report of the Tariff Board on the industry has made us familiar with them. Let it be hoped that the increase in revenue import duty on cotton goods from 11 per cent to 15 per cent (*ad-valorem*) and the special additional protective duty of 5 per cent on non-British goods will give the mills the breathing space in which to set their house in order. There are no short cuts to real lasting prosperity and unless the cotton mill interests resort to rationalization of their industry—a rationalization that will put

it on a competitive basis with its rivals—no solution of their difficulties, is possible. That the mill interests have awakened to the need of the hour, there is plenty of evidence. The future, therefore, should not be hopeless.

Rumour is afloat that a big 'merger' on the lines of the Lancashire Corporation is under contemplation in Bombay. The combine will attract about 50 mills and will be run on most efficient and economical lines. The most up-to-date machinery will be installed and the efficiency of labour which chiefly accounts for Japan's successful competition, will be cared for. The Imperial Bank of India will, it is said, assist with a loan of about Rs. 10 crores at 6½ per cent interest, as the Bank of England is assisting the Lancashire combine, provided Government are sure of the success of the scheme.

✓ The Annual Report of the Indian Section, Manchester Chamber of Commerce for 1929, publishes figures which show the progressive decline in Lancashire trade with India and the inroads made therein by Japan, and the production of yarn and piece-goods in India. The figures quoted in *Capital* of February 27, 1930, are given below:—

TABLE I. EXPORTS OF COTTON PIECE-GOODS FROM THE UNITED KINGDOM TO INDIA

Year		Grey	Bleached	Printed	Dyed in piece	Dyed in yarn	Total Quantity	Total Value (in Million £)
1913	...	1,483	782	470	286	36	3,057	35.0
1927	...	761	564	178	142	7	1,652	31.1
1928	...	624	588	174	147	8	1,542	30.4
1929	...	597	511	134	122	10	1,374	26.1

(1913—Millions of Linear Yards. Other years—Millions of Square Yards.)

TABLE II. EXPORTS OF COTTON YARNS FROM THE ,
UNITED KINGDOM TO INDIA

Year			(Weight millions lbs.)	Value (million £)
1913	...	...	37.4	2.3
1927	...	...	21.6	2.2
1928	...	...	21.7	2.4
1929	...	...	21.4	2.4

TABLE III. INDIAN IMPORTS FROM JAPAN

Year Ending March			Yarns (million lbs.)	Piece-goods (million yards)
1912-13	...	...	0.4	5.9
1926-27	...	...	26.6	243.6
1927-28	...	...	17.0	323.0
1928-29	...	...	7.6	357.3
1929 (April—Sept.)	...	...	5.3	265.1

TABLE IV. PRODUCTION OF COTTON YARNS AND
PIECE-GOODS IN INDIAN MILLS

Year			Yarns (million lbs.)	Piece-goods, (million yards)
1910—14 (Aug.)	...	...	647	1,106.
1926-27	...	...	807	2,259
1927-28	...	...	809	2,357
1928-29	...	...	648	1,893
1929 (April—Aug.)	...	...	300	885

Japan is the chief rival of Lancashire as well as of the India Cotton Mill industry. She has made inroads into the markets of both and it is competition from her much more than from Lancashire that seems to be threatening the life of the Indian Cotton Industry. From Lancashire she seems to be on the road to capturing the Indian raw market also. In a paper on Japanese

competition in the cotton trade read before the Royal Statistical Society by Mr. Barnard Ellinger and Mr. Hugu Ellinger on January 21, 1930, the writers clearly bring out this point. They say about three Japanese concerns that "not only do these three big firms control the shipments of Indian cotton to Japan and China, but they also control about 15 per cent of the total imports of Indian cotton supplied to the United Kingdom, and indeed, whereas India shipped in 1925-26, 540,000 bales of cotton to the United Kingdom, Belgium, Italy, Germany and Spain, 78,000 of these were shipped by Japanese firms."

Lancashire is made of a very stubborn stuff. The adversity through which its industry has been passing has made Lancashire gird up its loins to overcome its difficulties. Schemes of rationalization and amalgamation have been launched. The Lancashire Cotton Corporation was formed about a year back and has been joined by about 70 mills—more are to come in. It has also come to terms with the banks which will enable it to receive proper financial assistance. About a month ago the formation of the Cotton Textile Association was announced. All sections of the trade including the operatives are to be represented in the Association and its aim is to initiate and supervise co-operative effort and increase Lancashire's trade in respect of bulk and standardization. Now comes to hand the following piece illustrative of the propaganda that is to be carried on to encourage Swadeshi:—

London, March 11—In an attempt to help the cotton industry of Lancashire, women are being asked to buy and wear at least three cotton dresses in the coming summer, and wear red roses (made of cotton) as a sign of their determination to buy Lancashire goods wherever possible. Mannequin parades are being arranged with a similar object in view.

It is alertness and determination like Lancashire's that spells success,

In *Capital* of the 16th January last (p. 127), Mr. H. W. Perry pleads for the introduction of Rutways, the latest development in the methods of land transport. Rutways "consist of hard and smooth steel, concrete or wooden tracks, according to the weight of traffic to be carried, *only six inches wide*, and provided with small guiding flanges, one to two inches in height, to keep the vehicle wheels confined to these narrow tracks." They possess all the advantages of Railways and Roads and have none of their disadvantages. Railways carry heavy traffic at high speeds but at very high costs owing to the necessity they involve of having "sidings and station yards, and the expensive points and crossings, interlocked signals and disjointed rails and sleepers, etc." Roads also have heavy traffic but at low speeds and still higher costs because of their width as well as of the repairs and renewals entailed. Now, Rutways, on account of their smooth and hard tracks, make possible the achievement of almost as high speeds as Railways. And, because of the fact that Rutway vehicles, having flat-tyred wheels like ordinary road motor lorries, can be steered out to any side by the omission of the rutway flanges for a few feet (which is in fact done when vehicles or trains have to cross each other or to go to passengers' houses or factory buildings), the expense of providing sidings and station yards, etc., is altogether eliminated, and, as their angle-bar-rails are laid on hard concrete surfaces sleepers are not required, and hence there is no expenditure in this connection also. Then, the confinement generally of the vehicles to the tracks insures the safety of life and limb which is not the case with roads over which lorries and vehicles travel fast anywhere and everywhere.

~ Owing to financial stringency and fresh estimates being needed, Sir George Rainy informed the Assembly, but according to Indian opinion, mainly owing to the interests of Inland Shipping Companies being opposed to it, the Dacca-Aricha Rail-

way Project has been dropped. But it was announced that both the Railway Board and Government were alive to its urgency and regarded it as an essential link in the chain of through communications. It is, therefore, reasonable to hope that the project has not been finally given up but will be taken up in the not distant future. When completed the Railway would open up a large portion of Eastern Bengal, shorten the travel between Dacca and Calcutta by seven hours, and provide through communication between Peshawar and Eastern Bengal.

The Cherra-Chatak Ropeway which was declared open by the Governor of Assam at Cherrapunji on February 24, 1930, is a noteworthy example of what local enterprise can achieve. The Ropeway has been paid for largely by local money, and has been supported and encouraged by the local Siem. It is meant to do away with the high cost of transport of goods by railway to the plains, and will be utilized, for the present, for the carriage of coal and other minerals and potatoes thither, and, ultimately, for that of fish, rice and other commodities as well. When, the Governor said, the Assam-Bengal Railway will have a branch line from Sylhet to Chatak that place will be served by the railway, the steamer and the Ropeway.

The Federation of the Indian Chambers of Commerce and Industry at their last annual meeting adopted a resolution urging the Government to institute a thorough and comprehensive enquiry into the question of the development of Indian waterways with a view to the formulation of a national policy for encouraging inland water transport. The resolution deserves urgent consideration at the hands of Government.

The results of the working of Indian Railways during the year 1929-30, are anything but cheerful. The budgeted estimates were—revenue about Rs. 106½ crores, and expenditure about

Rs. 95½ crores, which if realized would have given a surplus of about Rs. 11½ crores. The revised estimates are—revenue Rs. 105 crores and expenditure Rs. 98 crores—approximately, which would result in a surplus of about Rs. 7 crores only from commercial lines. After meeting from this surplus the loss of Rs. 181 lakhs on strategic railways, a balance of Rs. 526 lakhs will be left. But this will not be sufficient to meet the contribution of Rs. 612 lakhs to general revenues. Hence the reserve will have to be drawn upon to the extent of Rs. 86 lakhs. This will be so if the actuals turn out to be as expected. But whether or not they actually do so remains to be seen.

The revised figures show that the revenue has decreased and the expenditure has increased as compared with the budget estimates. The decrease in revenue is attributed to the fact that except in coal and cotton, the traffic in all kinds of goods fell off. The grain traffic declined because of the lean harvests of recent years in Northern India and the traffic in other articles came down as a concomitant of the general trade depression which made purchasers adopt a cautious attitude in regard to purchases. The increased expenditure has been brought about by more money being spent up on the improvement of the service conditions of the low-paid staff, the heavy flood damages increasing repair and maintenance charges, the increased mileage necessitating increased expenditure and the taking over of the Southern Punjab Railway which means an increase in working expenses.

The budget estimates for 1930-31 provide for total receipts of about Rs. 108 crores and a total expenditure of nearly Rs. 100 crores and thus a net gain of about Rs. 8 crores. Of this Rs. 180 lakhs will be devoted to meeting the loss on strategic railways, Rs. 574 lakhs will be contributed to general revenues, and Rs. 34 lakhs will be added to the reserve fund.

The capital expenditure during 1929-30, was estimated at Rs. 26½ crores but actually it will be a little over Rs. 24 crores.

The capital expenditure during the coming year is expected to be Rs. 16½ crores.

The chief works in progress are the electrification of the ghat sections of the Great Indian Peninsular Railway and the suburban railways at Madras, the new Perambur Workshops of Madras and Southern Mahratta Railway, and the further prosecution of the Raipur-Vizianagram Railway which will give the Central Provinces a new outlet to the sea at Vizianagram.

The only important new work to be undertaken is the doubling of the East Indian Railway between Cawnpore and Tundla.

The last five years have seen about 2,300 miles of new lines opened to traffic.

The Mandi Hydro-Electric Inquiry Committee have submitted a unanimous report. The Committee are against the scheme being abandoned but recommend that before the second stage of the works is commenced a committee should go into the merits and demerits of the different schemes. If the work of distribution is entrusted to private companies, it is recommended that Indian firms should be given preference. They recommend that the supply of the current should commence not later than July, 1933. The total expenditure by that date is put at Rs. 6½ crores. The demand for the current by the 12th year is expected to be 40,000 Kilowatts. No tariff rates are recommended as any such recommendation is considered premature. But it is estimated that when the works are complete and supply current for domestic and industrial purposes it can be supplied at one-third the rates charged by private companies.

An Indian Advisory Economic Council as closely as possible on the lines of the British model is greatly needed for India. Sir George Schuster's announcement, therefore, that the country badly needed a constructive economic programme and that his own mind too was moving towards the proposal for such a council is to be heartily welcomed.

The establishment of a Central Jute Committee on the lines of the Cotton Committee has been decided upon by Government. The proposed Committee will go into the question of jute grading also.

As a corollary to the establishment of trade commissioners in Africa and the Near East, six new Trade Commissioners are going to be appointed at Hamburg, Milan, New York, Durban, Mombasa and Alexandria. Also a Deputy Director of Commercial Intelligence will be established at Bombay. Two of the trade commissioners will be appointed this year. Ultimately all the six commissioners will be Indian, though one non-Indian might be appointed for the present. Whether they should be non-officials or not will be decided after consultation with the High Commissioner for India and the Indian Trade Commissioner.

✓ A new sugar mill has been opened at Pilibhit, U.P. Since 1910 there has been a factory there with a capacity of 100 tons which later on was increased to 150 tons. But the factory was not up-to-date. The capacity of the new factory is 400 tons and it has been fitted with up-to-date machinery and railway siding. Both the factories will now crush 550 tons of sugarcane in 24 hours. Sir Malcolm Hailey, who performed the opening ceremony while welcoming the new venture dwelt upon the anxious times through which the sugar industry and trade were passing owing to external competition and low prices and observed that "nothing but the most economical and businesslike management and the

most careful use of scientific methods can survive that competition."

Mr. Birla's presidential address at the annual meeting of the Federation of Indian Chambers has brought to the fore the question of India's foreign liabilities in a most forceful manner. Perhaps no estimate of foreign investments in India can be arrived at which will be acceptable to all and sundry. Mr. Birla took his stand on the estimate submitted by the Associated Chambers to the Simon Commission—the estimate which put the amount of British capital in India at the figure of 1,000 millions sterling. Sir George Schuster, however, regarded some figure in the neighbourhood of £500 millions as the right figure. The *Financial Times* publishes figures which make the amount about £100 millions more than the Finance Member's figure. The figures are given below :—

	£ millions
(a) Government Sterling Debt	261
(b) Guaranteed Railway Debt	120
(c) Contribution to the 5% British War Loan	17
(d) Local Loans	10
(e) Investment in Companies Registered in India	75
(f) Investment in Companies Domiciled outside India	100
Total Investment	583

The League of Nations Advisory Committee on the Traffic in Opium and Dangerous Drugs have in their meeting in January-February last adopted a plan whereby an effective blow is being struck at the nefarious traffic in narcotics. According to the plan the world requirements for these will first be estimated, each

country submitting an estimate of its needs for medical and scientific purposes. The required production will then be allocated among the manufacturing countries by a quota system. Lastly, the needs of the different countries will be supplied through a Central Office which will be kept informed of all orders received and supplies made.

G. D. K.

To

THE MANAGING EDITOR,

Indian Journal of Economics, Allahabad.

“ A CORRECTION.”

Dear Sir,

On page 720 of the January, 1930 (Conference), Number of the Journal, the last sentence runs thus: “ There was not a great deal of room for retrenchment in this direction except in the B. B. & C. I. Railway so far as he was aware.” The insertion of that ‘ not ’ has made me say exactly the opposite of what I did say on that occasion. Here are a few figures relating to the point at issue:—

Railway System.	1928-29.			
	Gross Earnings Rs. lakhs.	Working Expenses Rs. lakhs.	Percent of Gross Earnings	Percent of Gross Earnings 1913-14.
Bengal-Nagpur	869	640	73	49
B.B. and C. I ...	712	415	58	49
East Indian ...	2050	1237	60	40
G. I. P. ...	1592	1046	65	60
North Western	1629	1091	66	54

[The figures relate only to the 5' 6" gauge in the case of each railway system and have been taken from the Railway Administration Report for 1928-29 in the case of the first three columns and from the Report for 1913-14 in the case of the last column.]

A comparison of the pre-war and present percentages of working expenses to gross earnings and of the percentages *inter se* indicates what room for retrenchment there is. I did not have

time during the discussion to give these figures, but I stated the conclusion arising therefrom when I said that there *was* a great deal of room for retrenchment of the working expenses except *perhaps* in the case of the B. B. & C. I. Ry. As a matter of fact I need not have excepted even the B. B. & C. I.

Please publish this correction in the April Number of the Journal.

Yours faithfully,

R. M. JOSHI.

[We are glad to publish the above letter. We regret that in taking down Mr. Joshi's speech the reporters made this slip.—M.E.]

REVIEWS OF BOOKS

FEDERAL FINANCE IN INDIA by Professor K. T. Shah. Taraporevala, Bombay.
Rs. 6. Pp. 332.

Professor K. T. Shah has published the six lectures which he delivered in Patna University on 'Federal Finance in India.' In the first lecture he deals with general principles; in the second with the evolution of financial federation in this country; in the third with a review of public revenue; in the fourth with a review of public expenditure. In Chapter V, in many respects the best of the whole book, he makes a study of finance and the economic relations with Indian States. The last lecture deals with financial organisation including audit.

'The Lectures' we are told in the Preface 'were addressed to an audience of University students of all classes, and were intended to be of general public utility, rather than as a piece of learned research.' They are written in an easy felicitous style so that he who runs may read and reading understand. In view of the forthcoming Report of the Simon Commission and Mr. W. T. Layton's Report on Financial Relations the lectures will be of special interest. War and Post-war experience has changed federal finance in many directions. No longer is it possible to say that indirect taxation is the sphere of the federal authority and direct taxation of the State or provincial authority as it might have been said before the War, Federal Governments have been compelled to invade the field of direct taxation to a degree never dreamt of hitherto in the philosophy of public finance. Income taxation in the United States is now the chief head of the total federal revenue being 58 per cent of the total. Canada introduced a Dominion tax in 1917 and the Australia Commonwealth has had to impose heavy direct taxation. In Germany, too, the Weimar constitution has given the Central Authority very great powers and the States which had large powers in pre-war times have now to give place to the Central Government which, as in a quasi-federal constitution like India, has almost sovereign power in the realm of public finance.¹ It is only a constitution like that of Switzerland, in many respects untouched by the War, that the States retain their old authority. Professor Shah refers to many of these changes which cannot for want of space be discussed here. In his dedication he facetiously quotes from the Rosary 'You upset me, my dear. What, then, do you see in the eyes of your Models? Their dreams—or, perhaps, mine.'

¹ *Vide Staatslexikon*, 5th Ed. Herder. Freiburg 1. Br. 1927, Vol. II, sub Finanzen des Reichs, der Länder und Gemeinden, pp. 8 ff. and sub Finanzverwaltung pp. 18 ff.

One will not agree with all that the author says on the subject of expenditure, on the civil services, on the exchange rates and on banks. Is the author correct when he says on p. 281 that 'The Indian Post Office is not meant to be purely or principally a service to the people as in the United States of America?' We feel inclined to say with Goethe 'more light, more light.' It will be interesting to see how far Professor Shah's 'suggestion for the combination of the smaller States to form more comparable and equal units in the Commonwealth of India' can work out in practice. The year 1930 may witness important proposals in this connexion. So far as British India is concerned it will be possible either for the Central Government to form a 'National Fund' and to subsidize provincial governments, or perhaps for provincial governments, at least the industrial provinces, to have a share in expanding heads of revenue, such as income-tax which with the return of industrial prosperity will considerably increase.

It is probably Professor Shah's familiarity with European languages that makes the book so readable. Unfortunately the misprints are far more numerous than either the author or the reviewer would desire.

G. FINDLAY SHIRRAS.

FACTORY LABOUR IN INDIA by Dr. Ahmad Mukhtar, M.A., Ph.D., University Professor of Economics, Annamalai University. Pp. 328. Published by the Annamalai University.

The problem of factory labour is assuming an ever-increasing importance in India. Since the Indian Home Rule agitation of 1917, there has always existed in this country a section of political workers which has taken to propaganda amongst the labourers in industrial centres as a part of their political programme. The activities of the International Labour Conference and the Indian membership of its executive have also done much to keep the labour problem to the forefront. The appointment of a royal commission on Indian labour on the one hand and the growing, almost menacing, unrest amongst industrial workers on the other have raised this subject of factory labour in India to the level of one of the most prominent questions of the day. At such a time the appearance of Dr. Mukhtar's book on the subject is very opportune. In this book covering over 300 pages the author has attempted with much success a systematic and comprehensive discussion of the economic condition of factory labourers in India. To that discussion is prefixed a full and critical account of labour legislation in India. A mass of very valuable statistical and first-hand information is presented to the reader in a forceful style. The book is a very valuable addition to the scanty supply of sound literature on the subject of Indian labour and it is to be hoped that all interested will benefit by its perusal.

The indifference of the majority of the Indian politicians towards the economic issues, or shall we say towards the economic aspect of the issues, that face the country, against which Dr. Mukhtar raises a complaining voice is a real drawback. Happily, however, this feeling of apathy is giving way before the realities of the political and economic situation. At least about a very numerous section of the public workers in India it can be said today that what they lack is not interest in economic issues, but clear understanding and proper direction. The deliberate fostering of economic and social discontent amongst the working classes constitutes a glaring instance of this unfortunate and dangerous tendency. Books like the one under review will be useful in educating the public on this subject. We are not sure that a careful perusal of parliamentary and other literature on the subject will justify the conflicting attitude that the author assumes towards the influence of Manchester and British Trade Unions on Indian labour legislation. We are free to admit that both these agencies have had a progressive effect on the solution of the labour difficulties in India. But that the former's interest in Indian Labour legislation was mainly philanthropic or that the latter are not touched by fears of competition from Indian workers in their protest against labour conditions in this country is simply not true. Foreign influence may indeed be utilised for the furtherance of a good national cause, but we ought to be under no misconception regarding the motives of such interlopers and legitimate interests of other classes in society must be sacrificed to the clamour of foreign propaganda. The suggestions that Dr. Mukhtar makes regarding the status of unregistered unions and unorganised labour as also his proposals for reform in respect of inspection, sickness benefits, works committees and education deserve favourable consideration. The book will serve as a very valuable piece of literature on a subject of much topical and permanent importance.

D. G. KARVE.

INDUSTRIAL EVOLUTION OF INDIA IN RECENT TIMES by D. R. Gadgil. Oxford University Press. 1929. Pp. 352. Price Rs. 4-8-0.

The first edition of this book was out in 1924 and was reviewed by us in No. I, Vol. VI of *Indian Journal of Economics*. That edition described the industrial development of India between 1860 and 1914. The second edition is to hand now and carries the narrative of Indian industrial evolution to the year 1927. The author does this by the addition of a chapter headed—The War and After—to the body of the original edition, in which practically no other change is made than that the bibliography and an appendix have been omitted.

The author sees no fundamental change that has come over India during the last 14 years. The India of today is, for all intents and purposes, the same as the India of 1914. Two remarkable events have, however, taken place during this period which augur well for the future of the country. These are the establish-

ment of the iron and steel industry and the change in the attitude of the Government towards industry. Public opinion and the exigencies of the war and post-war situation have brought home to the Government the evil effects which their *laissez-faire* policy was having upon the economic condition of the country and they are now more and more abandoning that policy and taking to one which will be of real help to the growth of our industry, agriculture and commerce.

The price of the new edition remains the same as that of the old one in spite of the fact that the former contains about 100 pages more than the latter. There was great need for up-to-date edition and this need has been supplied.

G. D. K.

INDIAN FINANCE IN THE DAYS OF THE COMPANY by Pramathanath Banerjee.
Macmillan. 1928. Pp 392. Price Rs. 5-12-6.

Indian Finance has always been of interest to Anglo-Indian officials as well as to Indian statesmen and has attracted considerable popular attention in the last fifty years. Several Parliamentary Committees have sat in prolonged sessions to discuss its intricacies and two Royal Commissions have considered the different sides of it at two critical periods of India's recent history. Yet, strangely enough, few scientific treatises exist on the subject and the student is compelled to wade through voluminous committee reports and minutes of evidence, and as there is no proper guide to lead him through that labyrinth he may get lost in the wilderness of controversies and the copiousness of folio volumes.

Such difficulties will no longer be felt by the student who pursues his researches into the pre-Mutiny finances of India ; for, in the book before us, Professor Banerjee has given a useful and businesslike summary, in a readable form, of the revenue and expenditure of the East India Company from its assumption of territorial power to the time when it unwillingly laid it down in 1858 after passing through the different stages of factor, zamindar, Diwan and ruler. Pressed by financial necessity to conduct wars and make "investments," the Company found itself in a deficit on many critical occasions ; but something or other turned up—maybe the curtailment of expenditure by some energetic Governor-General, maybe the improvement of some revenue source—and restored the financial solvency of the Company.

The treatment of the book is historical ; yet, the revenues and expenses of the Company are treated separately, and an attempt has also been made to analyse the administrative machinery that had been growing during the period. In the first two chapters, the growth of the financial system is traced and its defects analysed. The early financial machinery of the Company was quite adapted to the needs of a trading corporation, but it became absolutely unsuited with the assumption of expanding territorial sovereignty. Reform, however, came

slowly, its progress being obstructed by the rigid conservatism of the Court of Directors at Home. In the next two chapters, the main heads of revenue are dealt with, and the growth of the different items is traced from the very beginning. The Civil and Military expenditure forms the subject of the two concluding chapters. In 1857-58, the Company had a total revenue of £31,706,776 and its total expenditure came to £39,570,998, of which £7,864,222 was incurred on account of the great Mutiny. There are also valuable appendices in the book, and all through original sources have been utilized and copiously quoted.

The strength of the book is in its grasp of facts and the moderation of its criticism; perhaps its weakness lies in the lack of a synthetic view which is essential in a work like this. Even in regard to facts, it might be said that land revenue which was responsible for nearly 50 per cent of the total revenue at the time has been rather meagrely treated. One would have expected more accurate and complete accounts of the land revenue assessments in the different provinces, and their incidence upon the agricultural classes, than are given in the book. For, land administration, let us remember, has been the corner-stone of the Indian Government in all its stages. May we hope that in the next edition the author will give us a more synthetic view and that the picture will be more clearly drawn? Already Dr. Banerjee has laid economic students under debt; let us hope that the debt will be heavier. For, to whom else should we be under obligation for such debt than to the veteran economist and publicist who is Minto Professor at the Calcutta University?

P. J. THOMAS.

A HISTORY OF INDIAN TAXATION by Dr. Pramathanath Banerjee, M.A., D.Sc., Bar-at-Law. Minto Professor of Economics, Calcutta University. Macmillan & Co., Ltd., London. Pp. 541. Price Rs. 12-6-0.

In this book Dr. Banerjee has very lucidly given a well-connected exhaustive review of nearly all the important taxes in India. Local taxes are not included, because the author wants to bring out a separate book on the subject. The historical review of each tax is confined to the British period only. The policy underlying the imposition of each tax has been described with appropriate quotations from the speeches and writings of official members and the effects of each tax on the taxpayers and the community in general have also been carefully explained.

The first chapter deals with some general features of Indian Taxation. In this chapter the author also shows how no attempt has yet been made in India to apply the principle of ability to the entire tax system. The next two chapters give the history of license taxes and income-tax. The chapter on Income-Tax appeared in the October (1929) issue of the *Indian Journal of Economics*. This

fact has not been acknowledged in the book. History of Tariff has been traced in Chapter IV; and the history of Salt and Opium forms the subject of the next two chapters. In the seventh chapter, while dealing with the history of the Permanent Settlement and Land Revenue Dr. Banerjea rightly remarks :

"The great drawback of the land revenue system of India has been that too much has been left to the discretion of the individual officers, with the result that while in some cases the burden has been comparatively light, in others it has been unbearable."

The history of Excise, Stamps, Registration and minor taxes like *Sair*, *Moturfaj*, *Rahadari*, *Provincial Rates*, *Thathmela* and the *Poll Tax* is given in the last two chapters.

If the Table of Contents had been more elaborate or had the Index been given at the end of the book, its utility would have been greatly increased to those who like to use it as an authoritative book of reference.

We congratulate Dr. Banerjea on writing this excellent book and commend it to all those who are interested in the study of Taxation in India.

DAYA SHANKAR DUBEY.

ECONOMICS OF RURAL BENGAL by K. B. Saha, M.A. Messrs. Chakravarty & Chatterjee & Co., Ltd., 15, College Square, Calcutta. 1930. Pp. 296. Price Rs. 8.

This is a book which attempts to deal with the economics of rural Bengal by a writer who declares in the Preface that 'he is a person born in rural Bengal and whose life was passed in it, and who even at the present time spends a considerable part of the year there, and claims a personal knowledge of the economic conditions of the rural areas in the province.'

The volume runs through nearly three hundred pages and is divided into eleven chapters. The first two chapters deal with Physical Features, and Crop Production. Chapter III deals with Standards of Cultivation, IV with Land System, V and VI deal with Agricultural Holdings and Rural Finance, VII deals with Rural Industries, IX with Rural Labour and X with the Population Question. Chapter XI is styled 'Middle Class Employment.'

The chapter on land system is by far the most interesting of Mr. Saha's chapters and we agree with Professor Coyajee that it contains a careful sketch of the economics of tenancy legislation and a well arranged account of the various tenures. The *Sanja* and *Barga* systems have their counterpart in other provinces in India.

In page 111, Mr. Saha says that 'the land system in Bengal is not inconsistent with efficient cultivation,' but at a later stage declares, 'Human nature being what it is, when there is uncertainty in the return, it is too much to expect

the landlords to invest capital for improvement of the land.' Something must be wrong somewhere with the land system of Bengal. It cannot be both consistent and inconsistent with efficient economic progress. Mr. Saha might have explored the field a little further and given the reader the possible lines of agrarian reform.

Writing about 'Agricultural Holdings' Mr. Saha gives the reader a very interesting description of such holdings in the districts in Bengal as compared with other countries. But the smallness of the holding is not a peculiar problem confined to Bengal. Many provinces in India tell the same tale. In Madras an inquiry was made through the collectors to find what is an Economic Holding, but no conclusion was come to. In page 118, the author writes: "The 'ideal' size of the Agricultural Holding is that under which the employment of other factors of production can be made with the greatest advantage so that from the same cost the largest return is obtained." In practical life, this ideal is difficult to determine exactly, and the size must change from time to time according to the efficiency of methods of production. Professor Saha recognises this, but suggests that the size should be sufficiently *large* to provide for a *decent* living to the farmers who cultivate it. This opinion does not carry us very far. Suggestions for an element of compulsion on the agriculturist for the purpose of consolidation of Holdings are made and the legislation of 1928 in the Central Provinces which provided that power would be given to a proportion not less than one-half of the permanent right-holders holding not less than two-thirds of the occupied area in a village to agree to a scheme of consolidation, which scheme when confirmed—by whom?—becomes binding on all the permanent right-holders in the village and their successors in interest,—is quoted with approval. A more novel, and at the same time more tyrannous form of land legislation cannot be thought of in the present conditions of the country. The element of compulsion would seem to be unnecessary when other safe and useful forms of investment are made open to the villagers.

Mr. Saha has many useful things to say about agricultural indebtedness and its remedies, but his generalisation that indebtedness in Bengal is mostly the outcome of loans for consumption would seem to require further elucidation. The development of the co-operative credit system is advocated, and the recommendation of the Royal Commission on Agriculture that an efficient official staff for this purpose should be set up is quoted with approval. After all when one ponders over the co-operative problem, one is bound to feel that when every credit is given to the 'official' co-operator, real co-operation can never come from above, but only from below. The maintenance of a co-operative society is more valuable than its registration, and a good deal of non-official work for propagandist purposes is necessary.

Chapter XI, which deals with middle class unemployment does not seem to fit in quite properly with other parts of the book. The author does not pause to give us any definition of what he really means by middle class unemployment—rural or urban, educated or otherwise. Mr. Saha's estimate of the edu-

cational system as essentially cultural seems to err on the side of generosity, for after all the universities are also giving a 'vocational education' for the manufacture of clerks, officers, lawyers and others. It would appear to be a curious preparation for cultural progress to educate the young from the primary stage through the medium of a foreign language.

Mr. Saha is very bold when he makes the assertion that the fall in the numbers of middle-class Bengalees who are supported by other provinces is the *direct* result of their hostile attitude and the *deliberate* policy of excluding from appointment *all* outsiders. The author's suggestion that Mohamedan competition in Bengal has affected the Hindu middle class shows a refinement of analysis on a communal basis which seems to be a little out of place in a book obviously devoted to 'Rural Bengal' and not to 'Hindu' Bengal.

In page 289 Mr. Saha writes: 'The ideal of industrial self-sufficiency demands that the sons of the soil should have a dominant control in the industries and trade of the province.' This is really idealism with a vengeance! And why not apply it district by district, village by village, even in Bengal! Further on, the author deplores the advent of people from other provinces into Bengal and wants a militant re-organisation of Industries by and for the Bengalee. Writes he: 'The Bengalee trader is being gradually displaced by the Marwaris who have spread over the whole of Bengal. It is high time that the Bengalee merchant should realise the consequences of this outwardly imperceptible change and should make a stand against this *dangerous* and steady invasion of outsiders on the trade and commerce of the province. It may be remembered that the movement of the population from other provinces to Bengal such as it is, has not been assisted, but even as it is, it is largely the result of the energy, the ability, and the organising capacity of those whom Mr. Saha is pleased to call 'outsiders.' Prof. Saha cannot hunt with the hounds and run with the hare—he cannot advise Bengalees to exploit Assam and in the same breath close Bengal to others from outside. One wonders whether a tinge of parochial patriotism is not redolent of the author's analysis of middle class unemployment in Bengal.

The Book is well got-up and is bound to be of use to the student as an introduction to the study of rural problems in Bengal.

S. V. ARYAR.

INCOME-TAX IN RELATION TO ACCOUNTS by F. R. Marchant. Taraporevala & Sons. Third Edition. Pp. 332.

The author of this book is a lecturer in Accounting and Auditing at the Sydenham College, and is otherwise fully qualified to write a book on Indian Income-Tax in Relation to Accounts. The first edition of the book was published in 1919 after the Act of 1818, but since then it has gone through three editions, and has

recently been brought up-to-date by the inclusion of fresh material and elaboration of argument relating to the complicated sections of the Act of 1922 and its subsequent amendments. The book having been written primarily for accountants, auditors and accountant-students, there is not much in it which can interest the general student of Indian Income-Tax; but it ought to be of considerable use to the accountants and auditors, and also to the assesseees—specially to businessmen, the assessment of whose income is, as is well-known, a matter which calls for technical knowledge and wide experience of income-tax theory and practice. It is unfortunate that the book is marred by numerous printing mistakes, but the author has tried to make some amends for this drawback by putting a long 'Errata and Addenda' at the end of the book.

GYANCHAND.

TRADE AND CREDIT by R. G. Hawtrey. 1928. Longmans Green & Co. Pp. 203.

It is not an easy task to review a new book from the pen of Mr. Hawtrey. Any publication which appears in his name may be expected as a rule to raise some new issues or to make some distinctive contribution bearing on the theory of money. "Trade and Credit" is no exception in this regard to the precedent set by "Currency and Credit," "The Economic Problem," "Monetary Reconstruction" and "The Gold Standard in Theory and Practice." What makes the task of the reviewer particularly difficult on this occasion, is the fact that the present collection of essays deals with a part of economic theory on which the final word is yet to be said—namely, the theory of the trade-cycle. It would require more than ordinary self-confidence on the part of the reviewer to pretend to arbitrate when the contestants for the prize include such veterans as Beveridge, Mitchell, Fisher, Levington, Martin, Catchings & Forster, Keynes, Taylor, Hobson, Pigou, and last, but by no means least, Mr. R. G. Hawtrey.

The first essay entitled "Currency and Public Administration" lays stress on the ultimate dependence of credit-policies on the course and requirements of public administration. In ordinary times, no doubt, the aloofness of the Central Bank from political influences promotes the interest of sound credit. Each bank is then subject to a check from all others; each Central Bank has then to take its cue from the Central Banks of the World. But, when grave national emergencies arise, when governments press the not too unwilling banks for loans and legislatures are prepared to suspend statutes, when all countries are moving precipitately along the primrose path of inflation, then the standard passes away and along with it the vaunted independence and beneficence of the Central Bank also.

In the next chapter—"The Gold Standard and the Balance of Payments"—the process of settlement is examined under all sets of circumstances, which may

originate a disturbance, e.g., internal or external changes in credit-policy; seasonal or other changes in the demand or supply of foreign commodities, borrowing or lending of capital outside the country, the movement of liquid 'balances. The discussion serves to point out the great importance of expansion and contraction of credit in the maintenance of monetary equilibrium. An interesting departure from the usual modes of treating the subject is the distinction made between home trade-products and foreign trade-products and the prominence given to adjustments in the supplies of either in restoring the parity of international exchange. The light thrown on the nature of the movements of liquid balances and their consequences should correct many common misconceptions on the subject.

We are next introduced to a definition of finance as "the art of providing the means of payment." This definition is then carefully tested by applying it to the operations involved in the provision of working capital, permanent investments, the foreign-exchange market, insurance against death, insurance against risks to property, public finance. In each case, the purely financial aspects are carefully marked off from the non-financial.

Then succeeds a very intriguing discussion of "Inflationism" which as an article of public policy must be carefully distinguished from mere "inflation." In the early decades of the 19th century, credit in England was subject to a restrictive tendency which arose from three distinct causes—the desire to resume the gold standard, the progressive inadequacy of gold supplies from the mines, the periodic fluctuations attending the trade-cycles. The consequence was an endemic of unemployment. Thomas Attwood and later on, the Birmingham School, proposed as a remedy an issue of credit adequate to stimulate trade and industry to reach their full capacity. Such an issue of credit would, of course, have had different consequences on prices according as it was used as a remedy for any of the three causes. But, apart from any incidental errors of reasoning, can we justly brand Attwood's ideal of keeping industry fully employed as inflationary?

The argument now advances into the central thesis of the volume—the theory of the trade-cycle. Trade-cycles are described as fluctuations in productive activity rather than in output which depends on technical conditions. Figures of unemployment in that case, become naturally, the best indices of these fluctuations. The characteristics of the trade-cycle which challenge adequate explanation from the economists are—its periodicity (a word, on the precise meaning of which, economists, as usual, are not quite unanimous) and its international character.

The theory of the classical economists, even after certain amendments are made, leans heavily on the side of supply. It finds the explanation of periodicity in the length of time which extensions of capital-equipments and consequently replenishment of depleted stocks require. To explain its international character, it points to the dependence of each industry for the demand of its products on others and the contagiousness of optimism and pessimism. The error of this analysis lies in the subsidiary position which is ascribed to monetary conditions. If the resources required for the replenishment of stocks and extensions of capital are

derived from genuine savings, then the coming output is covered by the existing purchasing power and there is no cause for the starting of a trade-cycle. Similarly, when funds are at the disposal of the consumers are stationary, the mutuality of demand and optimism can become effective only through a fall of prices—a fact which is directly contradictory to the well-recognized symptoms of the prosperous phase of the trade-cycle. In any case, alterations in available credit are a condition precedent to the cycle.

The truth is that it is deficiency of demand as expressed in the money-outlay of consumers which causes these fluctuations. The actual process runs along the following lines. The resources raised by producers from the banks are continuously distributed as income among the consumers. As this income is enlarged, the consumers increase their outlay on goods but not to the same extent; a part of the income goes to increase their unspent margin—their cash-balances. This disparity between income and outlay does not affect the progress of the cycle; for the dealers are busy accumulating stocks corresponding to the unspent margin, as a defence against the increase in demand. At length, a moment arrives when those who are fully employed cannot execute fresh orders; and those whose stocks cannot be replenished so fast are forced to raise prices.

But, what is the moving force behind this expansion of credit? Under a gold standard, the creation of bank-credit waits on the available supplies of gold. But, on account of the lag of wages behind prices and the consequent slowness in the absorption of cash, the expansion of credit gets far ahead of available gold resources before the usual checks come into force. So soon as the restrictions become effective after the necessary lapse of time, dealers who hold stocks with borrowed funds and whose margin of profit is but small attempt to dispose of the surplus. It is then that the full adverse effects of the difference between consumers' income and consumers' outlay becomes visible, and depression sets in.

The course of depression is exactly the reverse—high rates of interest, small orders by dealers, reduced production of industry, contraction of consumers' income and consumers' outlay, glutted markets and unemployment, dissipation of cash-balances, the starting of the cycle again.

The conditioning factor of all these spiral movements is of course the inherent instability of credit. Banks by the very law of their existence must try to lend to their full capacity; their bloated lendings must of necessity lead to the aggravation of these cycles of economic activity.

Recently, theories of working capital have come into great prominence as partial or complete explanations of the trade-cycle. Mr. Hawtrey selects for his examination three leading presentations of this theory.

Mr. Robertson in his "Banking, Policy and the Price-level" bases his exposition on the assumption that in the ascending phase of the cycle, the requisite additions to the working capital must always be in excess of the creation of credit. Consequently, a corresponding inflation of bank-deposit is, in his opinion, the appropriate remedy for the malaise. In proposing this remedy, however, Mr.

Robertson seems to have mistaken the nature of the disease. The disparity between production and consumption is due to the inflated cash-balances and the stocks held by dealers against them. Credit is issued without restriction till industry reaches its full capacity; it is restricted only when dealers in their incapacity to replenish stocks and producers in their incapacity to execute additional orders raise prices and make further demands for working capital. The interest-rates soon compel them either to be satisfied with less stocks or to appeal to permanent savings for temporary purposes. In any case, the available credit is quite well-adjusted to the demands of productive activity.

Very dissimilar is the theory of Mr. Martin who presented it first in his small but vigorous work—"The Flaw in the Price-System" and elaborated it subsequently in "The Limited Market." Mr. Martin's main thesis is that the provision of working capital diverts continuously a portion of the consumers' purchasing power which would otherwise be applied to purchasing goods and thus causes a progressive inadequacy of demand. The willingness of industry to hold larger stocks than usual and the supply of abundant credit are admitted, in his account, as compensating factors. Mr. Martin makes a mistake, however, in overlooking the fact that the increase in cash-balances during the active phase is more apparent than real; for, the inflation of balances corresponds to a very much increased turn-over; and when prices are rising, traders find it more profitable to invest resources than to keep them as idle balances. Looked at in this manner, it is the movements of cash-balances which appear as the compensatory factor and the movements of credit as the principal factor.

On somewhat similar lines, runs the argument of Messrs. Forster & Catchings in their ingenious books—"Money," "Profits" and "Business Without a Buyer."

The final chapter of the book is in some ways the most important. It is devoted to a full examination of the theory of the trade-cycle as presented by Professor Pigou in his great treatise "Industrial Fluctuations."

Prof. Pigou classifies the possible causes of industrial fluctuations as Real, Psychological, and Autonomous Monetary causes. Among the real causes, he considers variations in harvests, inventions and discoveries of mineral deposits, industrial disputes, changes of taste, etc. Largely by a very fruitful application of the idea of the elasticity of demand, he leads us to the conclusion that, although these causes may bring about casual and irregular movements in productivity, they cannot account for the usual sequence of the trade-cycle. Money and credit affect fluctuations in two ways (1) as providing floating capital, (2) as changing the price-level. In his analysis of the effect of borrowings on the price-level, Prof. Pigou very strangely overlooks the fact that it is only in the later stages that prices are raised in the earlier stages, the increase of purchasing power merely leads to the increase of sales. In discussing the psychological causes, Prof. Pigou gives a just prominence to the cumulative effects of waves of pessimism or optimism. It is not clearly brought out, however, that optimism and pessimism cannot, in the practical world, gather momentum out of themselves.

and direct resources for any appreciable length of time; as a matter of fact, they are put daily to the test of business conditions and if, erroneous, their progress is at once arrested. Without the ground-work of credit expansion and contraction, optimism and pessimism must remain barren.

Periodicity is traced to four causes: (1) tendency of all plants to require renewal after a particular interval, (2) harvest variations, (3) psychological waves, (4) movements of credit. The second and the third causes have already been proved illusory on Prof. Pigou's own showing. The first cause, it will be found on a little reflection, has nothing in it to promote anything like periodicity in industrial activity. Thus, we are now left with one cause only—the movements of credit, which explain both the periodic and the international character of the trade-cycle.

Incidentally, a chapter is allotted to the discussion of the proposal made very frequently that the public expenditure on buildings, stores, etc., should be carefully adjusted to the requirements of employment in the country. Ever since Prof. Bowley first initiated the proposal in 1909, economic opinion has been very sharply divided on it. Mr. Hawtrey's conclusion on this intricate question is that the contention that the public works themselves give additional employment is radically fallacious and that when employment is improved by such expenditure, it is the result of some reaction on credit. Does this not overlook the possibility that such expenditure may increase as a normal and not exceptional consequence the velocity of money without altering the stock of money?

The foregoing discussion must have made it clear that "Trade and Credit" is one of those books on which final judgment must be held in abeyance for a long time. In the meanwhile, economists of all schools of thought will find in it an inexhaustible armoury from which they can draw deadly weapons according to their requirements and aptitudes.

S. K. MURANJAN.

THE POLITICAL ECONOMY OF FREE TRADE by Rt. Hon. J. M. Robertson. P. S. King & Son, Ltd., London. 1928. Price 8s. 6d. Pp. 190.

The Rt. Hon. Mr. J. M. Robertson is well-known in English political circles as a protagonist of Free Trade; and, although he has called the book "The Political Economy of Free Trade" and has insisted on looking at the question from the purely economic and scientific points of view his study cannot be regarded as a scientific, economic treatise on the subject. Mr. Robertson is a politician and not an economist by profession and he is interested in securing the victory of Free Trade agitation at all costs. He has written the book to combat the propaganda of the other side and to arouse the people against the instructive fascination of protection. He has reviewed the history of British Com-

mercial policy from the earliest times to the present day and has also referred to the Tariff policies of U.S.A., Germany and France in order to demonstrate that protection has always been harmful and that the only policy that has promoted the interests and well-being of the people is the policy of full freedom or free trade. No country has ever gained nor can ever gain by adopting a policy of protection and if a country has prospered during the protectionist regime it is due to other causes and not on account of protection but in spite of it. Moreover, the policy of protection is adopted not really from patriotic motives but from the point of view of the self-interest of a small class of persons. These are the conclusions which Mr. Robertson has formed after "a critical study of the practical economics of trade in world history."

It is no doubt true that the advantages of protection are greatly exaggerated by its supporters, and that often it serves class interests and not national interests. It is also correct that the infant industry for which protection is demanded temporarily to begin with refuses almost invariably to become an adult and that protection often encourages the continuance of antiquated and inefficient methods of production. It is true that protection often introduces log-rolling and corruption in the politics of a country and may lead to international rivalries and complications as well. But disadvantages are not all on the side of protection. Free Trade too can be used to injure national interests or to secure class benefit; and there are cases when a backward country, in spite of natural advantages, cannot start an industry on account of foreign competition which is often unfair, without protection and protective Tariffs. Protection must be used with discrimination and great care but it is often necessary in the case of backward countries.

As to the policy best suited to meet the present needs of England, it is not necessary to say much here: I generally agree in this respect with Mr. Robertson. The unemployment problem of England cannot be solved by protecting the home market; and, in my opinion, in the long run England will have to adjust herself to a new economy in which foreign trade will not play as important a part as it is playing today. She must decrease her population either by sending people to the colonies or by birth control.

GURMUKH N. SINGH.

INDIAN ECONOMICS, VOL. II by Prof. G. B. Jathar and Prof. S. G. Beri. Tara-porevala.

Abundance of material and a presentation of the subject as per curriculum of the Bombay University are the strong points of this book. In the second volume the following subjects are discussed: Industrialisation, Imperial Preference, Indian Industries, Industrial Labour, Poverty of India, Transport, Trade of India, Currency and Exchange, Prices, Banking, Finance, and Unemployment.

In an appendix a short summary of the recommendations and conclusions of the Agricultural Commission is added. The two volumes taken together thus constitute a very serviceable compendium of valuable information. The chapter on Transport in Vol. II is particularly commendable in this respect.

We sincerely appreciate the patient labour of the authors in bringing together a mass of valuable information. We, however, find that the guidance that they give in coming to a decision on our economic problems is not very satisfactory.

Take for example the question of the commercial policy of this country: on both the issues of protection and Imperial preference the authors have said ditto to the findings of the majority of the Fiscal Commission without rendering due weight to the case made out by the minority in favour of a wholehearted policy of industrial protection and against the acceptance of the principle of Imperial Preference. On the issue of Protection, it is often said, that the difference between the majority and the minority is one of emphasis only, and this remark is apparently justified. But it must be noted that in the peculiar political conditions of India this difference of emphasis turns out in many cases to be a difference in sincerity. The authors deserve praise for having boldly accepted the principle of protection; we are not, however, sure that they have done proper justice to the arguments based on defence, national self-sufficiency and diversification of industries. As regards the excess of caution recommended by the authors, one is constrained to remark that the interests of the consumer and the tax-payer have indeed to be watched, but it must at the same time be remembered that a half-hearted policy of protection secures for the nation all the evils of protection without any of its blessings. As regards Imperial Preference the authors frankly hit on their waggon to the star of Imperial loyalty and recommend a policy which on economic considerations does not appeal to them.

The subject of currency and exchange is very exhaustively treated by the authors. This part of their work is indeed valuable. They must also be congratulated for the unstinted support that they have offered to the establishment of a full-fledged gold currency in India. On the subject of the ratio their decision is in favour of the continuance of the present rate. On a vexed question like this it is futile to call in question anybody's conclusion. But what strikes us as curious, and what is bound to be a great difficulty for the freshmen, is the course of reasoning by which their decision is arrived at. The authors observe that the stabilisation of 1s. 6d. appeared like wanton tampering with the standard of value. They concede further that 'the economic historian of the future will not record the period that has passed since the new ratio was made effective as among the most prosperous for business and industry in this country.' Admitting that following the establishment of the new ratio there has been a marked depression in the trade and manufacturing industry of this country and without being in a position definitely to assert that an adjustment having taken place the process of revival has commenced, the authors are prepared to endow

the erstwhile impostor with 'the divinity which hedgeth a king.' Following Sir J. Coyajee the authors try to trace the consequences of the new ratio on agriculture with the help of statistics of the co-operative societies. Those who know the extent to which co-operation affects the agricultural population of this country, and the various disturbing factors involved in the methods of compilation of these statistics would be surprised to find that relying on these the authors conclude in a characteristic fashion that 'no cataclysmic disaster has overtaken agriculture on account of the new ratio.' A perusal of the figures of the exports of the chief agricultural staples and the variations in their prices would, however, indicate that the adverse effect of the ratio is as marked in agriculture as in manufactures and trade. The peculiarly favourable condition of the Bengal jute-grower must not blind us to the impoverishment of farmers in other parts of the country.

As regards the establishment of a reserve bank in India the authors have contented themselves with a descriptive sketch of the history of the proposal. They seem in this respect to follow the orthodox English view that business and politics are two things to be sedulously kept apart. As a matter of hypothetical theory many would agree with them. But in India everything is peculiar. Here in the case of the reserve bank private business mostly means foreign business, which in any case is a greater danger than state interference. The followers of the orthodox school never wearied in olden days of warning us against the evils of state enterprise in railway management. Now it is the turn of banking and we dare say that in days to come a number of similar problems will raise their heads. An appeal to the text-book maxims is ill calculated to be a reliable guide in their solution. On theoretical and practical considerations the people in India mistrust their government even more than the people in other countries. But when it comes to choosing between the prospect of domination by the foreign financial interests and the danger of state intervention in economic matters, the latter has to be preferred not only as the lesser evil but as the only way of counteracting the influence of the former.

We take this opportunity to bear willing testimony over again to the industry of the authors and the general adequacy of their information. We would suggest, however, that in bringing out their next edition, which we trust would soon be forthcoming, the chapter on Finance may with advantage be amplified. For the general reader seeking information on all the leading problems of Indian economics, and for students who are sufficiently advanced to decide between conflicting views the book under review may be recommended as a valuable store of information. We hope, however, that the authors will excuse us if we have to observe that they have, in our humble opinion, failed to exhibit sufficient decisive faculty in controversial issues.

D. G. KARVE.

